

Borgarráð

#### Ævintýraborg í Vogabyggð – Naustavogur 13, leiga á húsnæði fyrir leikskóla

Óskað er eftir að borgarráð samþykki húsaleigusamning við Klettaskjól ehf. um leigu á leikskólahúsnæði að Naustavogi 13.

#### Greinargerð:

Verkefnið Ævintýraborgir er afrakstur vinnu stýrihóps sem fer með verkefnið Brúum bilið. Brúum bilið verkefnið nýtir fjölbreyttar lausnir til að fjölga leikskólaplássum: byggja nýja leikskóla, reisa viðbyggingar við eldri leikskóla, opna nýjar leikskóladeildir í færanlegum húsum, fjölga plássum hjá sjálfstætt starfandi leikskólum og loks að leigja húsnæði af þriðja aðila undir leikskóla. Ævintýraborgirnar falla í síðastnefnda flokkinn með möguleika á kauprétti þannig ef húsnæðið verður vel heppnað þá hefur Reykjavíkurborg möguleika á að kaupa húsnæðið og nýta það á viðkomandi stöðum eða færa annað eftir því sem eftirspurnin breytist.

Skortur er á leikskólaplássi í þessum borgarhluta og hægt er með þessu að bregðast hratt við og fjölga leikskólaplássum. Áætlað er að pláss verði fyrir um 100 börn í leikskólanum.

Leigusamningurinn eru afrakstur vinnu og undirbúnings sem byggja á fyrri samþykktum borgarráðs og er sambærilegur tveim öðrum leigusamningum sem samþykktir voru í borgarráði 24.feb.. Einnig var áður samþykkt; tillaga um fjölgun leikskólaplássa með leigu á færanlegum einingum og leikskólarútum, samþykkt í borgarráði 29. apríl 2021 og tillögu um forgang þriggja staðsetninga vegna fjölgunar leikskólaplássa í borginni, samþykkt í borgarráði 20. maí 2021.

Húsið er samansett úr forframleiddum einingum sem fljótlegt er að setja saman og ganga frá á verkstað og þannig að úr verði gott húsnæði með öllum þeim nútíma aðbúnaði og þægindum sem þarf fyrir börn og starfsfólk miðað við nútíma kennsluaðferðir.

Leigusal i mun afhenda Reykjavíkurborg fullbúið leikskólahúsnæði án lauss búnaðar og innréttinga. Um er að ræða 902 m2 húsnæði og er gert ráð fyrir að leikskólinn verði afhentur í byrjun júlí 2022. Leigugjaldið er 4.860.900 kr. á mánuði.

Leigutími er tímabundinn til 10 ára frá afhendingu húsnæðisins.

Við kostnað bætist jarðvinna og grundun, gerð leikskólalóðar, innréttingar og laus búnaður. Frumkostnaðaráætlun er 180 millj. kr. Gert er ráð fyrir þessum kostnaði í fjárfestingaáætlun ársins 2022.

Virðingarfyllst, Óli Jón Hertervig Fjármála- og áhættustýringarsvið Eignaskrifstofa

Hjálagt:

Leigusamningur um húsnæði á Naustavogi 13, ásamt fylgiskjölum

### LEIGUSAMNINGUR UM HÚSNÆÐI FYRIR LEIKSKÓLA

#### 1. Aðilar samnings og tengiliðir fyrir þeirra hönd

**Leigusali:** Klettaskjól ehf., kt. 460121-0510, Klettagörðum 5, 104 Reykjavík.

Tengiliður: Ásgeir Þorláksson, s. 892-5616, asgeir@stolpigamar.is

**Leigutaki:** Reykjavíkurborg, kt. 530269-7609, f.h. Reykjavíkurborgar - eignasjóðs,

kt. 570480-0149, Borgartúni 12-14,105 Reykjavík.

Tengiliður: Jón Valgeir Björnsson, s. 664-9026, jon.valgeir.bjornsson@reykjavik.is

#### 2. Hið leigða

Hið leigða er 902 m² húsnæði fyrir leikskóla að Naustavogi 1 í Vogabyggð. Sjá nánar um hið leigða í eftirfarandi fylgiskjölum sem skoðast sem órjúfanlegur hluti samnings þessa:

1. Tæknilýsing framleiðanda

2. Skilalýsing leigusala

3. Tæknilýsing leigutaka

4. Teikningar af hinu leigða

Leigutaki skal afla tilskilinna leyfa fyrir rekstri sínum í hinu leigða gerist þess þörf.

#### 3. Leigutími

Hið leigða skal afhent leigutaka til umráða áætlað 1. júlí. 2022 (afhendingardagur). Leigusali skal láta leigutaka vita með 30 daga fyrirvara ef líkur eru á að afhending hins leigða verði fyrr eða seinna.

Frá afhendingardegi er leigutaka heimilt í samráði við leigusala og samhliða lokafrágangi hans á hinu leigða, að sinna á eigin ábyrgð og kostnað lokafrágangi á búnaði í hinu leigða.

Frágangur leigusala á hinu leigða skal lokið samkvæmt skilalýsingu (fskj. 2) þremur mánuðum eftir afhendingardag. Hluti hins leigða afhendist til fullra afnota leigutaka tveimur mánuðum eftir afhendingardag, skv. nánara samkomulagi.

Leigusamningur þessi er tímabundinn í 10 ár og hefst leigutíminn á afhendingardegi og lýkur án sérstakrar uppsagnar eða tilkynningar 30. júní 2032, sbr. þó 9. gr. Leigutaka ber að tilkynna leigusala, í síðasta lagi 6 mánuðum fyrir lokadagsetningu, hvort hann hafi hug á að halda áfram leigu eftir lok gildistímans. Haldi leigutaki áfram afnotum sínum í 8 vikur eftir lok gildistímans og krefjist leigusali ekki rýmingar hins leigða á tímabilinu, telst vera kominn á ótímabundinn leigusamningur með þeim sömu skilmálum og greinir í samningi þessum að því undanskildu að hvorum samningsaðila er þá heimil uppsögn með 12 mánaða fyrirvara. Uppsögn skal vera skrifleg og send með sannanlegum hætti.

#### 4. Húsaleiga

Leigutaki skuldbindur sig til að greiða leigusala mánaðarlega húsaleigu frá og með afhendingardegi sem svarar til kr. 4.860.900 með virðisaukaskatti fyrir fullan mánuð og rétt hlutfall þar af fyrir hluta úr mánuði.

Húsaleiga skal taka mið af vísitölu neysluverðs til verðtryggingar með grunnvísitölu í nóvember 2021 sem er 508,2 stig og taka mánaðarlegum breytingum til hækkunar eða lækkunar í samræmi við breytingar á henni en þó aldrei lægra en grunnvísitala.

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Leigutaka ber að standa leigusala skil á húsaleigu mánaðarlega fyrirfram fyrir þann mánuð sem er að hefjast. Gjalddagi er 1. dagur hvers mánaðar og eindagi 15 dögum síðar. Dráttarvextir reiknast frá gjalddaga ef ekki er greitt á eindaga. Reikningar leigusala skulu berast leigutaka 25 dögum fyrir gjalddaga til að dráttarvextir teljist réttmætir. Reikninga skal senda á Reykjavíkurborg – eignasjóður, kt. 570480-0149, b/t borgarbókhalds Borgartúni 12-14, 105 Reykjavík eða bokhald@reykjavík.is. Á reikningum skal koma fram númer verkbeiðni sem leigutaki sendir leigusala fyrir útgáfu fyrsta reiknings.

#### 5. Rekstrarkostnaður

Leigutaki greiðir allan rekstrarkostnað fyrir hið leigða, þ.m.t. ræstingu, sorphirðu og -eyðingu, upphitun, rafmagn og kalt vatn, auk reksturs á öryggis- og brunaviðvörunarkerfi. Leigusali mun þó greiða samningsbundnar úttektir þjónustuaðila á brunaviðvörunarkerfi hins leigða. Rekstur bílastæða og lóðar er á kostnað og ábyrgð leigutaka. Leigutaki mun sjálfur greiða fyrir og sjá um uppsetningu endabúnaðar netkerfa.

Leigutaki greiðir af hinu leigða fasteignagjöld og iðgjald lögbundinnar brunatryggingar. Leigusali mun tryggja hið leigða fram að skráningu í Þjóðskrá Íslands.

#### 6. Ástand hins leigða, breytingar og skil

Leigusali sér um og kostar uppsetningu hins leigða og frágang þess skv. samningi þessum. Leigutaki sér um og kostar aðkomu að hinu leigða utanhúss, gerð bílastæða og leikskólalóðar ásamt girðingum til afmörkunar lóðar.

Leigusali afhendir leigutaka hið leigða innréttað í samræmi við fylgiskjöl 1-4. Telji leigutaki hið leigða ekki í umsömdu ástandi, eftir að hann hefur tekið við því, skal hann tilkynna leigusala það skriflega þegar í stað og eigi síðar en innan tveggja mánaða frá því hann fékk hið leigða afhent. Leigusali skal bæta úr réttmætum athugasemdum svo fljótt sem verða má.

Leigusali skal óska staðfestingar byggingafulltrúa á að hið leigða sé reist í samræmi við samþykkta uppdrætti, lög og reglugerðir.

Við lok leigutíma samnings þessa skal leigusali á sinn kostnað aftengja hið leigða og flytja það af lóðinni og skilja við lóðina þannig að ekki skapist hætta fyrir vegfarendur. Verði leigusamningi rift af einhverjum orsökum ber leigutaki kostnað af því að aftengja húsnæðið og flytja það á athafnasvæði leigusala á höfuðborgarsvæðinu í góðu ástandi miðað við eðlilega notkun.

Breytingar á hinu leigða eða búnaði þess af hálfu leigutaka skulu vera með skriflegu samþykki leigusala og á kostnað leigutaka.

Leigutaki skilar húsnæðinu að leigutíma loknum í sambærilegu ástandi og þegar hann tók við því að teknu tilliti til eðlilegs slits vegna aldurs. Allar endurbætur og breytingar verða eign leigusala að leigutíma loknum og verða aðeins framkvæmdar í fullu samráði við hann.

#### 7. Viðhald á hinu leigða

Leigutaki annast á sinn kostnað allt nauðsynlegt og eðlilegt viðhald innanhúss, svo sem á raftenglum, ljósum, vatnskrönum, gluggarúðum, hurðum, hurðabúnaði o.þ.h. Auk þess annast leigutaki á sinn kostnað allt minniháttar viðhald utanhúss.

Leigusali annast á sinn kostnað allt meiriháttar viðhald utanhúss.

West

#### 8. Tjón á hinu leigða

Leigutaki ber ábyrgð á tjóni á hinu leigða samkvæmt ákvæðum húsaleigulaga nr. 36/1994 og almennum reglum skaðabótalaga.

#### 9. Kaupréttur

Leigutaki öðlast kauprétt á hinu leigða 12 mánuðum eftir afhendingu þess og er kaupverðið þá 449.490.000 kr. með virðisaukaskatti. Kauprétturinn fellur sjálfkrafa niður 12 mánuðum eftir að hann varð virkur.

Kaupverð hins leigða skal taka mið af vísitölu neysluverðs til verðtryggingar með grunnvísitölu í nóvember 2021 sem er 508,2 stig og taka breytingum til hækkunar eða lækkunar í samræmi við breytingar á henni en bó aldrei lægra en grunnvísitala.

Komi til kaupa á hinu leigða skal kaupsamningur gerður þegar ákvörðun um kaup liggur fyrir. Í kaupsamningi verða nánari ákvæði um kaupin, þ.á.m. fyrirkomulag greiðslu kaupverðs.

#### 10. Ástand, jarðvinna og innviðir á lóð

Verði tafir á afhendingu veitufyrirtækja, leyfisveitingum, skipulagsmálun (s.s. stofnun lóðar), jarðvinnu, lögnum í jörð, sökklum og/eða öðrum nauðsynlegum innviðum á lóð sem leiða af sér tafir á afhendingu hins leigða hefur það ekki áhrif á rétt hans til að innheimta húsaleigu í samræmi við áætlaða afhendingu til lokafrágangs, sbr. 3 gr.

#### 11. Merkingar

Leigutaka er heimilt að setja upp merkingar og skal það gert í samráði við leigusala. Ber leigutaka að fjarlægja allar merkingar að leigutíma liðnum.

#### 12. Framsal leiguréttar

Framsal leiguréttar er aðeins heimilt með skriflegu samþykki leigusala. Þrátt fyrir framangreint er leigutaka heimilt að framleigja hið leigða til annarra starfsdeilda innan Reykjavíkurborgar. Ábyrgð leigutaka gagnvart leigusala skal þó í engu skerðast við það.

#### 13. Vanefndir

Um samning þennan gilda riftunarreglur húsaleigulaga nr. 36/1994. Áður en til riftunar kemur vegna vanefnda á samningi þessum skal sá aðili, sem telur sig hafa heimild til riftunar vegna þeirra vanefnda, skora á gagnaðila að bæta úr þeim annmörkum sem um ræðir innan 30 daga frá því að honum berst tilkynning með sannanlegum hætti. Sé að fullu bætt úr því sem aflaga fór fellur réttur aðila til riftunar þá niður af þeim sökum.

#### 14. Umgengnisskyldur, réttindi og fleira

Leigutaki skal í hvívetna fara með leiguhúsnæðið á þann hátt sem samræmist góðum venjum um meðferð húsnæðis og fyrirhuguðum notum þess. Leigutaka er skylt að ganga vel og snyrtilega um hið leigða húsnæði og gæta settra reglna og góðra venja um hreinlæti, hollustuhætti og heilbrigði. Leigutaki skal án tafar tilkynna leigusala um þau atriði utan húss eða innan sem þarfnast lagfæringar eða viðhalds.

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Leigusali skal hafa rétt til aðgangs að öllu hinu leigða húsnæði til eftirlits, til þess að framkvæma úrbætur eða til þess að sýna húsnæðið vegna matsgjörða, endurleigu eða sölu, enda tilkynni hann leigutaka slíkt með hæfilegum fyrirvara.

#### 15. Húsaleigulög

Um samskipti leigusala og leigutaka og um réttindi og skyldur hvors um sig gilda að öðru leyti en í samningi þessum greinir og eftir því sem við geta átt, ákvæði húsaleigulaga nr. 36/1994 með áorðnum breytingum.

#### 16. Annað

Allar breytingar og viðaukar sem gerðir eru við þennan samning skulu vera skriflegir og undirritaðir af báðum aðilum. Allar orðsendingar, tilkynningar og kvartanir, sem samningur þessi gerir ráð fyrir, skulu vera skriflegar og sendar með sannanlegum hætti.

Rísi mál út af samningi þessum skal það höfðað fyrir Héraðsdómi Reykjavíkur.

Öllu framangreindu til staðfestingar, rita aðilar nöfn sín hér undir í viðurvist vitundarvotta.

Reykjavík, 10. desember 2021

Leigusali:  Casgur Sorlehsm  f.h. Klutaskjóls	Leigutaki:  f.h. Reykjavíkurborgar
Vottar að réttri undirskrift, dags. og fjárræð Nafn og kennitala 230589-310	ði aðila:

Lease of modules | Sale of modules Habitable modules | Sanitary modules Storage modules | Modular buildings



#### Quotation addressed to:

#### STÓLPI GÁMAR EHF

Klettagardar 5 104 Reykjavik

Tel.: Fax:

E-Mail: asgeir@stolpigamar.is, hilmar@stolpigamar.is

IČO: 460121-1590 DIČ: 142255

# **Quotation from:**

#### ALGECO s.r.o.

Brnenska 703 686 03 Stare Mesto Czech Republic

Tel.: +420 572 520 861

+420 572 520 870 +420 572 520 860

Fax: +420 572 520 860 E-Mail: <u>algeco@algeco.cz</u>

#### Price Quotation No.: AL-0013-05-2021-MR-Q

# www.algeco.cz

#### Contact person

#### Michal Moravanský

Tel.:

E-Mail: Michal.Moravansky@algeco.com

# 1. Advantages of Algeco solutions

- Quality level of configurations made from our modules is comparable to brickwork buildings
- From planning to final realization: comprehensive solution from single supplier
- Confident planning thanks to guarantee of fixed price
- Fast implementation and construction development
- Design and equipment according to individual needs
- High level of quality, guaranteed by our own certified production
- Possibility to provide modules of non-standard size
- Utilization of environment friendly materials

# 2. Technical description

#### **Dimensions**

Soft



Pcs. SX-2 36

Outside dimensions:

Length: 6.058 mm Width: 2.995 mm Height: 3.230 mm

Inside dimensions: Height: 2.750 mm

#### 4 Pcs. SX-2 36

Outside dimensions:

Length: 6.010 mm Width: 2.995 mm Height: 3.230 mm

Inside dimensions: Height: 2.750 mm

#### 5 Pcs. SX-1 39

Outside dimensions:

Length: 9.025 mm Width: 2.995 mm Height: 3.230 mm

Inside dimensions: Height: 2.750 mm

#### 4 Pcs. SX-1 39

Outside dimensions:

Length: 9.000 mm Width: 2.995 mm Height: 3.230 mm

Inside dimensions: Height: 2.750 mm

#### Framework



#### Floor smooth transitions

Preparation for floor smooth transition.

Not including final connections of flooring on transitions between units which must be finished after delivery and connecting of modules together on site.

Price for final installation is not included.



#### SX-1 - Frame - 9 x 3 m units

Welded steel frame made of hollow, chamfered and rolled profiles of EN 1090 standard, 8 reinforced container corners, ventilated roof, permissible load – **2.000 N/m2**, rainwater drainage – drainpipes located inside corner stanchions, diameter of drainpipes 50 mm, insulated to prevent freezing. Unit is not stackable.

Construction is welded according EN 1090.

Wind loading: 28m/s.

The steel construction is varnished with a two-component coating system in RAL scale that is resistant to UV rays, climatic influences and corrosion environment C3 (ISO12944-5:2008) on a visible part of the structure. The outside wall sheathing is protected by powder coating.

#### RAL 6018 / 7022.

#### SX-2 - Frame - 6 x 3 m units

Welded steel frame made of hollow, chamfered and rolled profiles of EN 1090 standard, 8 reinforced container corners, ventilated roof, permissible load – **2.000 N/m2**, rainwater drainage – drainpipes located inside corner stanchions, diameter of drainpipes 50 mm, insulated to prevent freezing. Units are stackable (max. 2 units) according to static regulations.

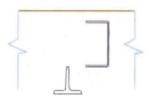
Construction is welded according EN 1090.

Wind loading: 28m/s.

The steel construction is varnished with a two-component coating system in RAL scale that is resistant to UV rays, climatic influences and corrosion environment C3 (ISO12944-5:2008) on a visible part of the structure. The outside wall sheathing is protected by powder coating.

#### RAL 6018 / 7022.

#### Floor



#### SX - Floor

Welded floor frame made of rolled and hollow beams and fitted with galvanized 0,75 mm metal sheet covering underneath.

Insulating material: **140 mm of mineral wool**, DIN 4108 (A1 classification, DIN 4102, incombustible)

Vapor barrier – PE foil (PE 0,15mm) U=0, 24 W/m2K

Floor loading: 3.000 N/m2

#### Floor board



#### Standard - Floor board

19 mm chipboard V100 E1 placed on steel load bearing beams.



# 18 mm seven-layer plywood - units with sanitary + kitchen (4 pcs 9 x 3 m + 2 pcs 6 x 3 m)

18 mm water resistant limed multiplex placed on steel load bearing beams. Without vapor blocker.



#### Cement - chipboard 22 mm - sanitary units 6 x 3 m

In sanitary units or sanitary parts 22 mm cement chipboard placed on steel load bearing beams.

#### Floor covering





#### Marmoleum Real 2,5 mm (FORBO)

Marmoleum Real 2,5 mm, 3146 (FORBO)

#### Roof



0, 75 mm galvanized profile, profile depth 35 mm, placed on steel roof beams. Insulation: 180 mm of mineral wool, DIN 4108 (A1 classification, DIN 4102, incombustible).

Vapor barrier - PE foil (PE 0,15mm), U=0,19 W/m2K

#### 333 m2 Tyvek DuPont weather barrier

Tyvek DuPont weather barrier

#### Ceiling



#### Fermacell plasterboard EI 30 EN Ceiling

2x10 mm Fermacell gypsum plasterboard. It is placed on ceiling construction by drive screw. Joints of plaster boards are luted and grinded. Rastr 313mm.Boards are coated by double dispersed color. Color is also wear resistive.

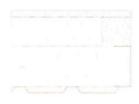
Fire protection from inside to outside only!

Fermacell Construction according to the structure 2S11

#### Suspended ceiling system - not to be provided by Algeco

Suspended ceiling system in some units will be supplied and installed by client.

#### Peripheral walls



#### Peripheral wall 110 mm insulation - inner perimeter walls

Galvanized profiled metal sheet 0, 6 mm, profile depth

10 mm. 70 mm - framework made of galvanized metal sheet profiles + 40 mm wooden construction. Insulation 110 mm of mineral wool, DIN 4108 (A1 classification, DIN 4102, incombustible)

Vapor barrier - PE foil (PE 0,15mm) - installed between 70 mm framework and 40 mm wooden profile.

U = 0,36 W/m2K

#### SX peripheral wall ATYP - outer perimeter walls

Galvanized profiled metal sheet 0,6 mm, profile depth

10 mm. 100 mm - framework made of galvanized metal sheet profiles + 40 mm wooden construction. Insulation 140 mm of mineral wool, DIN 4108 (A1 classification, DIN 4102, incombustible)

Vapor barrier - PE foil (PE 0,15mm) - installed between 100 mm framework and 40 mm wooden profile.

U = 0, 24 W / m 2 K

#### Tyvek DuPont weather barrier

Tyvek DuPont weather barrier.



#### Inside facing of the peripheral walls



# Fermacell plasterboards - Inside peripheral walls according to EI30 DP1 $\hbox{EN}$

1x12,5mm Fermacell gypsum plasterboard. It is placed on peripheral walls by drive screw. Joints of plaster board are luted and grinded. Boards are coated by double dispersed color. Color is also wear resistive. Insulation min. 50mm rock wool with min. density 20 kg/m3.

Fire protection from inside to outside only!

Construction according to the Fermacell structure 3S13



# Fermacell plasterboards - Inside peripheral walls according to EI60 EN - for BE/NL

2x15mm Fermacell A1 Firepanel plasterboard. It is placed on peripheral walls by drive screw. Joints of plaster board are luted and grinded. Boards are coated by double dispersed color. Color is also wear resistive.

Fire protection from inside to outside only!

Construction according to the Fermacell structure 3S21 A1

#### Parting walls



#### Gypsum board - parting walls rm

12,5 mm gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

50 mm profile structure, mineral wool 40/50 URSA.

12,5 mm gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

Parting walls are affixed to the floor and ceiling by metal U-profiles. Corner connections between parting walls and peripheral walls are luted and sanded. Surface is coated with double layer paint.



#### EI60 Partition wall Fermacell / Fermacell gypsum board

12,5 mm Fermacell gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

#### 60 mm profile structure, rock wool 30 kg/m3 insulated.

12,5 mm Fermacell gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

Parting walls are affixed to the floor and ceiling by metal U-profiles. Corner connections between parting walls and peripheral walls are luted and sanded. Surface is coated with double layer paint.

#### WC cabins

#### 9 bm WC cabin - Böhme System - for children (lowered height)

System Böhme. There is an empty space between floor and bottom part of the board and between ceilling and top part of the board. 28 mm laminated particleboard fixed in aluminium frame. Doors are accordingly buit-in system. They have white PVC handle, lock which can lock up from inside of cab.

#### Windows

# Pcs. ALU window 550 x 550mm, 1-part - TILT - ORNAMENT - RAL 6018 ALU window, 550 mm x 550 mm, ornament glass, Wing is tilt, with rubber gasket and plastic lining.

Color of the frame: outside RAL 6018 / inside WHITE.

Insulating glass 4/16/4 mm. U = 1,1 W / m2K

Pcs. ALU window 1.100 x 1.100 mm without window blind - TURN - RAL 7022 1- wing ALU window, 1.100 x 1.100 mm, with rubber gasket. Wing is turn only, white fittings Maco, white outside window-sill with powder surface treatment.

Color of the frame: outside RAL 7022 / inside WHITE. Insulating glass 4 / 16 / 4 mm. U = 1,1 W / m2K.

Pcs. ALU window 1.100 x 1.100 mm without window blind - TURN - RAL 7022 - VSG safety

1- wing ALU window, 1.100 x 1.100 mm, with rubber gasket. Wing is turn only, white fittings Maco, white outside window-sill with powder surface treatment

Color of the frame: outside RAL 7022 / inside WHITE. Insulating VSG safety glass (both sides) 33.1 / 16 / 33.1. U = 1,1 W / m2K.

Pcs. ALU window 1.100 x 1.100 mm without window blind - FIX - RAL 7022 1- wing ALU window, 1.100 x 1.100 mm, with rubber gasket. Wing is FIX only, white fittings Maco, white outside window-sill with powder surface treatment.

Color of the frame: outside RAL 7022 / inside WHITE. Insulating glass 4 / 16 / 4 mm. U = 1,1 W / m2K.

1 Pcs. ALU window 1.100 x 1.100 mm without window blind - FIX - RAL 7022– VSG safety

1- wing ALU window, 1.100 x 1.100 mm, with rubber gasket. Wing is FIX only, white fittings Maco, white outside window-sill with powder surface treatment.

Color of the frame: outside RAL 7022 / inside WHITE. Insulating VSG safety glass (both sides) 33.1 / 16 / 33.1. U = 1.1 W / m2K.

- Pcs. ALU window 1.100 x 1.100 mm without window blind TILT RAL 7022
  1- wing ALU window, 1.100 x 1.100 mm, with rubber gasket. Wing is tilt,
  white fittings Maco, white outside window-sill with powder surface treatment.
  Color of the frame: outside RAL 7022 / inside WHITE.
  Insulating glass 4 / 16 / 4 mm. U = 1,1 W / m2K.
- 5 Pcs. ALU window 1.650 x 1.650 mm without window blind FIX RAL 7022 VSG safety

1- wing ALU window, 1.650 x 1.650 mm, with rubber gasket. Wing is FIX only, white fittings Maco, white outside window-sill with powder surface treatment.

Color of the frame: outside RAL 7022 / inside WHITE. Insulating VSG safety glass (both sides) 33.1 / 16 / 33.1. U = 1.1 W / m2K.

6 Pcs. ALU window 550 x 550mm, 1-part - TILT - CLEAR - RAL 7022 ALU window, 550 mm x 550 mm, clear glass, Wing is tilt, with rubber gasket and plastic lining.

Color of the frame: outside RAL 7022 / inside WHITE. Insulating glass 4/16/4 mm. U = 1,1 W / m2K

Pcs. ALU window 550 x 550mm, 1-part - FIX - CLEAR - RAL 7022
ALU window, 550 mm x 550 mm, clear glass, FIX, with rubber gasket and plastic lining.

Color of the frame: outside RAL 7022 / inside WHITE. Insulating glass 4/16/4 mm. U = 1,1 W / m2K

3 Pcs. ALU window 550 x 550mm, 1-part - FIX - CLEAR - RAL 7022 - VSG safety

ALU window, 550 mm x 550 mm, <u>clear</u> glass, FIX, with rubber gasket and plastic lining.

Color of the frame: outside RAL 7022 / inside WHITE. Insulating VSG safety glass (both sides) 33.1 / 16 / 33.1.  $U = 1.1 \ W / m2K$ .

OTH

Pcs. ALU window 550 x 550mm, 1-part - FIX - ORNAMENT - RAL 6018

ALU window, 550 mm x 550 mm, ornament glass, FIX, with rubber gasket and plastic lining.

Color of the frame: outside RAL 6018 / inside WHITE.

Insulating glass 4/16/4 mm. U = 1.1 W / m2K

2 Pcs. ALU window 550 x 550mm, 1-part - TILT - ORNAMENT - RAL 7022

> ALU window, 550 mm x 550 mm, ornament glass, Wing is tilt, with rubber gasket and plastic lining.

Color of the frame: outside RAL 7022 / inside WHITE.

Insulating glass 4/16/4 mm. U = 1.1 W / m2K

#### Outside door

Pcs. ALU door 1.100 x 2.200 mm

Aluminium outside door, 1- wing, 1.100 x 2.200 mm, white, VSG- ISOglassing (without middle dividing profile), open to outside, self closure with stopper, corner door frame with rubber sealings. Profile cylindrical lock with three keys.

Color of the frame: outside RAL 7022 / inside RAL 9016.

Clear dimension: 909 x 2.103 mm

2 Pcs. ALU door + window 2.000 x 2.200 mm

> ALU door + window, 1- wing door, whole panel 2.000 x 2.200 mm, white, VSG- ISO- glassing (without middle dividing profile), window part is fixed, door wing open to outside, self closure, door frame with rubber sealings. Profile cylindrical lock with three keys.

Including anti-panic lock EN179.

Color of the frame: outside RAL 6018 / inside RAL 9016.

Clear dimension (of door): 1.000 x 2.103 mm

Master key system for all lockable door - together for all three parts of the building

> Master key system for all lockable door. Included are 3 pcs of master keys (these are able to unlock all doors) + 156 pcs of individual keys (these are able to unlock individual doors).

Pcs. Protection of children fingers Finprotect

Protection of children fingers Finprotect

#### Inside door

Pcs. Protection of children fingers ATHMER NR-25 16

Protection of children fingers ATHMER NR-25

Pcs. T-30 H3D - fireproof door - 2.000 x 2.125 - between two units

T-30 H3D fireproof double wing door 2.000 x 2.125, galvanized, self closure on 1 wing, door frame, profile cylindrical lock with anti-panic function EN179 (only priority wing).

Clear dimension: 1.910 x 2.065 mm

Frame and door are assembled on site.

Pcs. T-30 H3D - fireproof door - 1.000 x 2.125 - between two units

T-30 H3D fireproof door 1.000 x 2.125, 1-wing, galvanized, self closure, door frame, profile cylindrical lock.

Clear dimension: 915 x 2.065 mm





Pcs. 875 x 2.125 - inside door for parting walls - tubular core
Wooden door in steel frame 875 x 2.125, HPL foil - white color, tubular
chipboard core, two hinges, stainless steel rosette and handle / handle,
cylindrical lock with three keys. Rubber gasket. Rubber doorstop.
Clear dimension: 800 x 2.075 mm



Pcs. 875 x 2.125 – inside door - between two units - tubular core
Wooden door in steel between units frame 875 x 2.125, HPL foil - white color,
tubular chipboard core, two hinges, stainless steel rosette and handle / handle,
cylindrical lock with three keys. Rubber gasket. Rubber doorstop. Frame and
door are assembled on site.

Clear dimension: 800 x 2.075 mm

#### Sanitary equipment

Pcs. Washbasin 400x360 - Hot water - for children - in height 500 mm
Ceramic washbasin 400 x 360 including mixing hot/cold tap. Waste water seal, water inlet and outlet.

Hot water to be provided by client.



Pcs. Washbasin 400x360 - Hot water - in height 850 mm

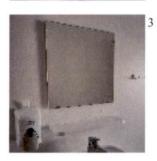
Ceramic washbasin 400 x 360 including mixing hot/cold tap. Without

through-flow heater and extra protected socket, waste water seal, water inlet and outlet.

Hot water to be provided by client.



Pcs. Washbasin 500x400mm - Hot water - standard height
Ceramic washbasin 500 x 400 including mixing hot/cold tap., waste water seal,
water inlet and outlet.
Hot water to be provided by client.



Pcs. **Set for the washbasin** mirror 400x500mm, liquid soap dispenser, a plastic shelf and a metal towel hook .



Pcs. Set into the Washbasin - for children mirror 400x500mm, liquid soap dispenser, a plastic shelf and a metal towel hook.



Pcs. WC - hanging type - standard height

Ceramic toilet hanged on front wall JIKA, with PVC seat, water tank, toilet paper holder, toilet accessories.



Pcs. Floor outlet PVC

Floor outlet, diameter 115 mm, grey colored. Outlet is embedded in the floor. It is taken out at the bottom side of the container by the HT-grey tube DN 50.

25 bm Front wall H=1.400mm

All fittings and pipes hidden in front wall. Height of front wall ca. 1.400 mm.



Pcs. Stainless steel hanging sink

Stainless steel sink hanged on the wall, including grid, water valve for cold water, outlet, inlet of water.



Pcs. Folding changing table

Folding changing table, thickness 18 mm, white, installed on the wall with reinforcement at the height of 1000 mm.

4 Pcs. WC for children - H-ca.330mm - hanging on front wall

Ceramic WC for children, hanged on front wall, with PVC seat, water tank, toilet paper holder, toilet accessories.

5 Pcs. Preparation for the kitchen (kitchen is not part of the offer)

Preparation for the kitchen (kitchen is not part of the offer). Inlet pipe 1/2"

Outlet pipe DN50

Hot water to be provided by client.

8 bm Front wall - up to the ceiling

Front wall - up to the ceiling.

Inlet/Outlet

OTT/ No



Pcs. Standard - Inlet/Outlet

1 x water stop 3/4", with a water tap and a pressure valve Supply pipeline: aluminium – plastic pipe, white coating. Discharge piping: grey HT – piping, DN 100, no coating 1 x exit pipe through the wall projecting 100 mm out of the wall.

All piping is hidden in front walls.

Pcs. Hot water inlet piping 11 Hot water inlet piping.



Floor opening with cover 200 x 200 mm

Floor opening with cover 200 x 200 mm. For the water inlet and outlet.

Pcs. Floor opening with cover 400 x 200 mm Floor opening with cover 400 x 200 mm. For input electro.

#### Heating



Pcs. Electric convector 2,0 KW

Electric convector 2.000 W with Thermostat including socket and extra automacic circuit breaker.

(For Belgium and Netherlands socket NIKO)



Pcs. Electric convector 2,0 KW with ventilator

Electric convector 2.000 W with Thermostat and ventilator IPX4 including socket and extra automacic circuit breaker. (For Belgium and Netherlands socket NIKO)



#### cs. Electric convector 500W IP24

Electric convector 500 W IP24, 369x451x78mm, ECOFLEX TAC 05

#### **Electroinstallation DE**



#### Pcs. Ventilator 90m3

Ventilator 230 V, power 90 m3/hour, including white pipe HT - DN 100 for air outlet which is taken out throuht wall module out. From outside of the unit is metal grid with openings.



#### Pcs. Finishing relay

Finishing relay for a ventilator with persistence, fluently adjustable from 3, 6, 12 minutes.



#### 14 Pcs. Switch - 1.400 mm above floor surface

Light switch.

Including special sealing sleeve.



Pcs. Emergency lighting LED - IP65 - with pictogram - indoor and outdoor

Emergency lighting ECONOMIC LED SA, 1,2 W, stand by time 3 hours, IP65. For indoor and outdoor using. With pictogram.

Pcs. Central distribution box - 1 pc main + 1 pc secondary switch boards
Central distribution box with current protector FI 0,03 A including circuit breaker and equipotential bonding rail. Connection of the cables between units

- 11 / 14 -

is solved by cable drain, which is leded under the ceiling. Jonits and mounting of the cables is done on the place. Electrical box does not include: terminal block, surge arrester (overvoltage protection).

Electrical drawings of the project are not included.

Pcs. Cables outlet - for lights 38

Cable outlet from ceiling, length 2 m, 230V, 16A.

8 Pcs. Cables outlet - for smoke detector

Cable outlet from ceiling, length 2 m, 230V, 16A.

Socket with Children protection - 1.400 mm above floor surface 53 Socket with Children protection 230V. Including special sealing sleeve.



Pcs. Internal presence detector

Internal presence detector. Angle range - 360°.



Smoke detector

Battery powered smoke detector, preparing for future expansion of fire system.

Outside LED light IP44 with motion sensor 6

Outside LED light 15 W IP44, 1 184 lm, with motion sensor, installed above entrance door.

Pcs. Cables outlet - outside - for inverter 11

Cable outlet from outside wall, length 4 m, 230V, 16A.

Pcs. LED light 20 W - equivalent to 1x36 W

LED light 20 W (2.500 lm) Type: KSL2000M4KS/ND

Equivalent to: 1x36 W (fluorescent light)



10 Pcs. LED light 41 W - equivalent to 2x36 W

LED light 41 W (5.000 lm)

Type: KSL4000M4KS/ND

Equivalent to: 2x36 W (fluorescent light)



Cable drain

- Pcs. Wall opening 150 x 100 mm for cable channel, with cover, without cap Wall opening 150 x 100 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

  This is not included in the price.
- Pcs. F60 wall opening 150 x 100 mm for cable channel, with cover, without cap F60 wall opening 150 x 100 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings are partially protected by installation of Fermacell gypsum boards for fire proofness!.
- Pcs. F60 wall opening 250 x 100 mm for cable channel, with cover, without cap F60 wall opening 250 x 100 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings are partially protected by installation of Fermacell gypsum boards for fire proofness!.
- Pcs. Wall opening 250 x 150 mm for cable channel, with cover, without cap Wall opening 250 x 150 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

  This is not included in the price.
- Pcs. F60 wall opening 250 x 150 mm for cable channel, with cover, without cap F60 wall opening 250 x 150 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings are partially protected by installation of Fermacell gypsum boards for fire proofness!.
- Pcs. Wall opening 175 x 175 mm for cable channel, with cover, without cap Wall opening 175 x 175 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

  This is not included in the price.
- Pcs. Wall opening 210 x 210 mm for cable channel, with cover, without cap
  Wall opening 210 x 210 mm for cable channel, with cover, without cap.
  For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

  This is not included in the price.
- Pcs. Wall opening 510 x 250 mm for cable channel, with cover, without cap Wall opening 510 x 250 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

  This is not included in the price.
- Pcs. Wall opening 900 x 500 mm for cable channel, with cover, without cap Wall opening 900 x 500 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

  This is not included in the price.
- 47 bm 170/70 2-chamber cable drain Betterman for electrical cabeling
  White PVC two chamber cable drain, producer Bettermann 170/70 without supporting metal sheet. Installed under the ceiling.

OAT NO

#### Extra charge for RAL



Unit Extra charge for RAL 6018 / 7022

Extra charge for atypical RAL color option except standard colors RAL 1015, 7035, 9010, 9002.

Not for metallic colors!



Unit Extra charge for RAL 6018 / 7022

Extra charge for atypical RAL color option except standard colors RAL 1015, 7035, 9010, 9002.

Not for metallic colors!

#### Mounting kit

Pcs. Mounting kit - Fermacell - included

Mounting kit - outside - between units

Mounting kit - inside - between units - Fermacell

<u>Including connection set for connections between all three parts of the building (see layout drawing of all three parts connected together).</u>

#### Electrical project

14 Pcs. Electrical project - included

Electrical project for one unit



Habitable modules | Sanitary modules Storage modules | Modular buildings

# algeco

#### Quotation addressed to:

#### STÓLPI GÁMAR EHF

Klettagardar 5 104 Reykjavik

Tel.: Fax:

E-Mail: asgeir@stolpigamar.is, hilmar@stolpigamar.is

IČO: 460121-1590 DIČ: 142255

**Quotation from:** 

ALGECO s.r.o.

Brnenska 703 686 03 Stare Mesto Czech Republic

Tel.: +420 572 520 861 +420 572 520 870 Fax: +420 572 520 860 E-Mail: algeco@algeco.cz

Price Quotation No.: AL-0013-05-2021-MR-R

www.algeco.cz

Contact person

Michal Moravanský

Tel.:

E-Mail: Michal.Moravansky@algeco.com

# 1. Advantages of Algeco solutions

- Quality level of configurations made from our modules is comparable to brickwork buildings
- From planning to final realization: comprehensive solution from single supplier
- Confident planning thanks to guarantee of fixed price
- Fast implementation and construction development
- Design and equipment according to individual needs
- High level of quality, guaranteed by our own certified production
- Possibility to provide modules of non-standard size
- Utilization of environment friendly materials

# 2. Technical description

**Dimensions** 

Up At



Pcs. SX-2 36

Outside dimensions:

Length: 6.010 mm Width: 2.995 mm Height: 3.230 mm

Inside dimensions: Height: 2.750 mm

3 Pcs. SX-2 36

Outside dimensions:

Length: 6.058 mm Width: 2.995 mm Height: 3.230 mm

Inside dimensions: Height: 2.750 mm

5 Pcs. SX-1 39

Outside dimensions:

Length: 9.000 mm Width: 2.995 mm Height: 3.230 mm

Inside dimensions: Height: 2.750 mm

1 Pcs. SX-1 39

Outside dimensions:

Length: 9.025 mm Width: 2.995 mm Height: 3.230 mm

Inside dimensions: Height: 2.750 mm

#### Framework



#### Floor smooth transitions

Preparation for floor smooth transition.

Not including final connections of flooring on transitions between units which must be finished after delivery and connecting of modules together on site.

Price for final installation is not included.



#### SX-1 - Frame - 9 x 3 m units

Welded steel frame made of hollow, chamfered and rolled profiles of EN 1090 standard, 8 reinforced container corners, ventilated roof, permissible load – **2.000 N/m2**, rainwater drainage – drainpipes located inside corner stanchions, diameter of drainpipes 50 mm, insulated to prevent freezing. Unit is not stackable.

Construction is welded according EN 1090.

Wind loading: 28m/s.

OH! N

The steel construction is varnished with a two-component coating system in RAL scale that is resistant to UV rays, climatic influences and corrosion environment C3 (ISO12944-5:2008) on a visible part of the structure. The outside wall sheathing is protected by powder coating.

#### RAL 6018 / 7022.

#### SX-2 - Frame - 6 x 3 m units

Welded steel frame made of hollow, chamfered and rolled profiles of EN 1090 standard, 8 reinforced container corners, ventilated roof, permissible load – **2.000 N/m2**, rainwater drainage – drainpipes located inside corner stanchions, diameter of drainpipes 50 mm, insulated to prevent freezing. Units are stackable (max. 2 units) according to static regulations.

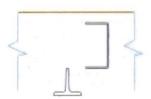
Construction is welded according EN 1090.

Wind loading: 28m/s.

The steel construction is varnished with a two-component coating system in RAL scale that is resistant to UV rays, climatic influences and corrosion environment C3 (ISO12944-5:2008) on a visible part of the structure. The outside wall sheathing is protected by powder coating.

#### RAL 6018 / 7022.

#### Floor



#### SY - Floor

Welded floor frame made of rolled and hollow beams and fitted with galvanized 0,75 mm metal sheet covering underneath.

Insulating material: **140 mm of mineral wool**, DIN 4108 (A1 classification, DIN 4102, incombustible)

Vapor barrier – PE foil (PE 0,15mm) U=0, 24 W/m2K

Floor loading: 3.000 N/m2



#### Floor with slope into the floor drain

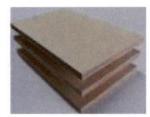
Floor with slope into the floor drain, without step at the entrance to showers. Installed in the room with on wall shower heads.

#### Floor board



#### Standard - Floor board

19 mm chipboard V100 E1 placed on steel load bearing beams.



#### 18 mm seven-layer plywood - units with sanitary

18 mm water resistant limed multiplex placed on steel load bearing beams. Without vapor blocker.

#### Floor covering

OAH IN







#### Ceramic pavement 200 x 200 mm, R11 - shower rooms

Ceramic pavement, squares 200 x 200 mm, thickness 9 mm, grey, **nonskid class R11 - relief surface**, glued to the floor board. Floor and wall joint's are agglutinated by an acrylic lute.

#### Plinth made of ceramic tiles - shower rooms

Plinth made of ceramic tiles.

#### Roof



#### SX - Roof

0, 75 mm galvanized profile, profile depth 35 mm, placed on steel roof beams. Insulation: **180 mm of mineral wool**, DIN 4108 (A1 classification, DIN 4102, incombustible).

Vapor barrier - PE foil (PE 0,15mm), U=0,19 W/m2K

#### 234 m2 Tyvek DuPont weather barrier

Tyvek DuPont weather barrier

#### Ceiling



#### PVC - (SIMONA) board - ceiling - shower rooms

10 mm PVC - (SIMONA) white board. Board is adhered to the ceiling construction by rivets. Rivets are covered by white cap. Joints of PVC board are covered with PVC H-profile.



#### Fermacell plasterboard EI 30 EN Ceiling

2x10 mm Fermacell gypsum plasterboard. It is placed on ceiling construction by drive screw. Joints of plaster boards are luted and grinded. Rastr 313mm.Boards are coated by double dispersed color. Color is also wear resistive.

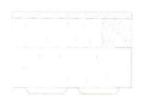
Fire protection from inside to outside only!
Fermacell Construction according to the structure 2S11

#### Suspended ceiling system - not to be provided by Algeco

Suspended ceiling system in some units will be supplied and installed by client.

#### Peripheral walls





#### Peripheral wall 110 mm insulation - inner perimeter walls

Galvanized profiled metal sheet 0, 6 mm, profile depth

10 mm. 70 mm – framework made of galvanized metal sheet profiles + 40 mm wooden construction. Insulation 110 mm of mineral wool, DIN 4108 (A1 classification, DIN 4102, incombustible)

<u>Vapor barrier – PE foil (PE 0,15mm) - installed between 70 mm framework</u> and 40 mm wooden profile.

U = 0,36 W/m2K

#### SX peripheral wall ATYP - outer perimeter walls

Galvanized profiled metal sheet 0,6 mm, profile depth

10 mm. 100 mm – framework made of galvanized metal sheet profiles + 40 mm wooden construction. Insulation 140 mm of mineral wool, DIN 4108 (A1 classification, DIN 4102, incombustible)

<u>Vapor barrier – PE foil (PE 0,15mm) - installed between 100 mm</u> framework and 40 mm wooden profile.

U = 0, 24 W/m 2K

#### Reinforcement of the side wall for kitchen

Reinforcement of the side wall for kitchen.

123 bm Tyvek DuPont weather barrier

Tyvek DuPont weather barrier.

123 bm Thermal Barrier Tape

EN

Thermal Barrier Tape.

#### Inside facing of the peripheral walls



#### PVC - (SIMONA) board - inside peripheral walls

10 mm PVC - (SIMONA) white board. Board is adhered to the peripheral walls by rivets. Rivets are covered by white cap. Joints of PVC board are covered with PVC H-profile.

#### Ceramic tiles - inner walls m2 - at the shower

12,5 mm gypsum plasterboard . It is placed on peripheral walls by drive screw. 4,0 mm white ceramic tile,  $200 \times 250$  mm, glued and pointed by lute. Joints of the floor and walls are luted by acryl lute



# Fermacell plasterboards - Inside peripheral walls according to EI30 DP1

1x12,5mm Fermacell gypsum plasterboard. It is placed on peripheral walls by drive screw. Joints of plaster board are luted and grinded. Boards are coated by double dispersed color. Color is also wear resistive. Insulation min. 50mm rock wool with min. density 20 kg/m3.

Fire protection from inside to outside only!

Construction according to the Fermacell structure 3S13



# Fermacell plasterboards - Inside peripheral walls according to EI60 EN - for BE/NL

2x15mm Fermacell A1 Firepanel plasterboard. It is placed on peripheral walls by drive screw. Joints of plaster board are luted and grinded. Boards are coated by double dispersed color. Color is also wear resistive.

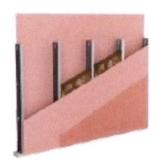
Fire protection from inside to outside only!

Construction according to the Fermacell structure 3S21 A1



#### Parting walls





#### Gypsum board - parting walls rm

12,5 mm gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

50 mm profile structure, mineral wool 40/50 URSA.

12,5 mm gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

Parting walls are affixed to the floor and ceiling by metal U-profiles. Corner connections between parting walls and peripheral walls are luted and sanded. Surface is coated with double layer paint.



10 mm PVC (SIMONA) white board. PVC board's joints are solved by PVC H-profile.

50 mm profile structure, mineral wool 40/50 URSA.

12,5 mm gypsum plasterboard . It is placed on peripheral walls by drive screw. 4,0 mm white ceramic tile,  $200 \times 250$  mm, glued and pointed by lute. Joints of the floor and walls are luted by acryl lute



#### EI60 Partition wall Fermacell / Fermacell gypsum board

12,5 mm Fermacell gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

#### 60 mm profile structure, rock wool 30 kg/m3 insulated.

12,5 mm Fermacell gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

Parting walls are affixed to the floor and ceiling by metal U-profiles. Corner connections between parting walls and peripheral walls are luted and sanded. Surface is coated with double layer paint.



#### PVC (SIMONA) board / gypsum board

10 mm PVC (SIMONA) white board. PVC board's joints are solved by PVC H-profile.

50 mm profile structure, mineral wool 40/50 URSA.

12,5 mm gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

Parting walls are affixed to the floor and ceiling by metal U-profiles. Corner connections between parting walls and peripheral walls are luted and sanded. Surface is coated with double layer paint.

#### Windows

#### Pcs. ALU window 550 x 550mm, 1-part - TILT - CLEAR - RAL 6018

ALU window, 550 mm x 550 mm, clear glass, Wing is tilt, with rubber gasket and plastic lining.

Color of the frame: outside RAL 6018 / inside WHITE.

Insulating glass 4/16/4 mm. U = 1,1 W / m2K

# Pcs. ALU window 1.100 x 1.100 mm without window blind - FIX - RAL 6018 – VSG safety

1- wing ALU window,  $1.100 \times 1.100$  mm, with rubber gasket. Wing is FIX only, white fittings Maco, white outside window-sill with powder surface treatment.

Color of the frame: outside RAL 6018 / inside WHITE. Insulating VSG safety glass (both sides) 33.1 / 16 / 33.1. U = 1.1 W / m2K.

#### 3 Pcs. ALU window 1.100 x 1.100 mm without window blind - TILT - RAL 7022

1- wing ALU window, 1.100 x 1.100 mm, with rubber gasket. Wing is tilt, white fittings Maco, white outside window-sill with powder surface treatment.

Color of the frame: outside RAL 7022 / inside WHITE.

Insulating glass 4 / 16 / 4 mm. U = 1,1 W / m2K.



Pcs. ALU window 1.650 x 1.650 mm without window blind - FIX - RAL 7022 - VSG safety

1- wing ALU window,  $1.650 \times 1.650 \text{ mm}$ , with rubber gasket. Wing is FIX only, white fittings Maco, white outside window-sill with powder surface treatment.

Color of the frame: outside RAL 7022 / inside WHITE. Insulating VSG safety glass (both sides) 33.1 / 16 / 33.1. U = 1.1 W / m2K.

Pcs. ALU window 2.200 x 2.200 mm without window blind - FIX - RAL 7022 – VSG safety

1- wing ALU window, 2.200 x 2.200 mm, with rubber gasket. Wing is devided 50/50 vertically in 2 parts, both are FIX only, white fittings Maco, white outside window-sill with powder surface treatment.

Color of the frame: outside RAL 7022 / inside WHITE.

Insulating VSG safety glass (both sides) 33.1 / 16 / 33.1. U = 1.1 W / m2K.

Pcs. ALU window 550 x 550mm, 1-part - FIX - CLEAR - RAL 7022 – VSG safety

ALU window, 550 mm x 550 mm, <u>clear</u> glass, FIX, with rubber gasket and plastic lining.

Color of the frame: outside RAL 7022 / inside WHITE. Insulating VSG safety glass (both sides) 33.1 / 16 / 33.1. U = 1.1 W / m2K.

Pcs. ALU window 550 x 550mm, 1-part - TILT - ORNAMENT - RAL 7022 ALU window, 550 mm x 550 mm, ornament glass, <u>Wing is tilt</u>, with rubber gasket and plastic lining.

Color of the frame: outside RAL 7022 / inside WHITE. Insulating glass 4/16/4 mm. U = 1.1 W / m2K

#### Outside door

2 Pcs. ALU door + window 2.000 x 2.200 mm - RAL 6018

ALU door + window, 1- wing door, whole panel 2.000 x 2.200 mm, white, VSG- ISO- glassing (without middle dividing profile), window part is fixed, door wing open to outside, self closure, door frame with rubber sealings. Profile cylindrical lock with three keys.

Including anti-panic lock EN179.

Color of the frame: outside RAL 6018 / inside RAL 9016.

Clear dimension (of door): 1.000 x 2.103 mm

1 Pcs. ALU door + window 2.200 x 2.200 mm - RAL 7022

ALU door + window, 1- wing door, whole panel 2.200 x 2.200 mm, white, VSG- ISO- glassing (without middle dividing profile), window part is fixed, door wing open to outside, self closure, door frame with rubber sealings. Profile cylindrical lock with three keys.

Including anti-panic lock EN179.

Color of the frame: outside RAL 7022 / inside RAL 9016.

Clear dimension (of door): 1.000 x 2.103 mm

1 Pcs. Master key system for all lockable door - together for all three parts of the building

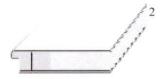
Master key system for all lockable door. Included are 3 pcs of master keys (these are able to unlock all doors) + 156 pcs of individual keys (these are able to unlock individual doors).

3 Pcs. Protection of children fingers Finprotect

Protection of children fingers Finprotect

#### Inside door

8 Pcs. Protection of children fingers ATHMER NR-25 Protection of children fingers ATHMER NR-25



Pcs. T-30 H3D - fireproof door - 1.000 x 2.125 - between two units

T-30 H3D fireproof door 1.000 x 2.125, 1-wing, galvanized, self closure, door frame, profile cylindrical lock.

Clear dimension: 915 x 2.065 mm



Pcs. 875 x 2.125 - inside door for parting walls - tubular core

Wooden door in steel frame 875 x 2.125, HPL foil - white color, **tubular chipboard core**, two hinges, stainless steel rosette and handle / handle, cylindrical lock with three keys. Rubber gasket. **Rubber doorstop**.

Clear dimension: 800 x 2.075 mm



Pcs. 875 x 2.125 - inside door - between two units - tubular core

Wooden door in steel **between units** frame 875 x 2.125, HPL foil - white color, **tubular chipboard core**, two hinges, stainless steel rosette and handle / handle, cylindrical lock with three keys. Rubber gasket. **Rubber doorstop. Frame and door are assembled on site.** 

Clear dimension: 800 x 2.075 mm

#### Sanitary equipment



Pcs. Washbasin 500x400mm - Hot water - standard height

Ceramic washbasin 500 x 400 including mixing hot/cold tap., waste water seal, water inlet and outlet.

Hot water to be provided by client.



Pcs. Set for the washbasin

mirror  $400 \times 500 \text{mm}$ , liquid soap dispenser, a plastic shelf and a metal towel hook .



Pcs. WC - hanging type - standard height

Ceramic toilet hanged on front wall JIKA, with PVC seat, water tank, toilet paper holder, toilet accessories.



Pcs. Floor outlet PVC

Floor outlet, diameter 115 mm, grey colored. Outlet is embedded in the floor. It is taken out at the bottom side of the container by the HT-grey tube DN 50.



Pcs. Stainless steel hanging sink

Stainless steel sink hanged on the wall, including grid, water valve for cold water, outlet, inlet of water.

#### 2 Pcs. Shower head with mixer tap installed in the wall

Shower head with mixer tap for hot and cold water, including piping, everything installed in the front wall.

#### 2 Pcs. Preparation for the kitchen (kitchen is not part of the offer)

Preparation for the kitchen (kitchen is not part of the offer). Inlet pipe 1/2"
Outlet pipe DN50
Hot water to be provided by client.

bm Front wall - up to the ceiling

Front wall - up to the ceiling.

#### Inlet/Outlet

10 Pcs. Hot water inlet piping

3

Hot water inlet piping.



Pcs. Standard - Inlet/Outlet

1 x water stop 3/4", with a water tap and a pressure valve Supply pipeline: aluminium – plastic pipe, white coating. Discharge piping: grey HT – piping, DN 100, no coating 1 x exit pipe through the wall projecting 100 mm out of the wall.

All piping is hidden in front walls.

Pcs. Floor opening with cover 400 x 200 mm

Floor opening with cover 400 x 200 mm. For input electro.

#### Heating

3 Pcs. Electric convector 1,0 KW

-9/14-



Electric convector 1.000 W with Thermostat including socket and extra automacic circuit breaker. (For Belgium and Netherlands socket NIKO)



10 Pcs. Electric convector 2,0 KW

Electric convector 2.000 W with Thermostat including socket and extra automacic circuit breaker.

(For Belgium and Netherlands socket NIKO)



Pcs. Electric convector 2,0 KW with ventilator

Electric convector 2.000 W with Thermostat and ventilator IPX4 including socket and extra automacic circuit breaker. (For Belgium and Netherlands socket NIKO)



Pcs. Electric convector 500W IP24

Electric convector 500 W IP24, 369x451x78mm, ECOFLEX TAC 05

#### **Electroinstallation DE**

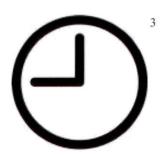


Pcs. Ventilator 90m3

Ventilator 230 V, power 90 m3/hour, including white pipe HT - DN 100 for air outlet which is taken out throuht wall module out. From outside of the unit is metal grid with openings.



Jp 1741



Pcs. Finishing relay

Finishing relay for a ventilator with persistence, fluently adjustable from 3, 6, 12 minutes.



Pcs. Switch - 1.400 mm above floor surface

Light switch.

Including special sealing sleeve.



Pcs. Emergency lighting LED - IP65 - with pictogram - indoor and outdoor using

Emergency lighting ECONOMIC LED SA, 1,2 W, stand by time 3 hours, IP65. For indoor and outdoor using. With pictogram.

1 Pcs. Central distribution box - 1 pc main switch board

Central distribution box with current protector FI 0,03 A including circuit breaker and equipotential bonding rail. Connection of the cables between units is solved by cable drain , which is leded under the ceiling. Jonits and mounting of the cables is done on the place. Electrical box does not include: terminal block, surge arrester (overvoltage protection).

Electrical drawings of the project are not included.

31 Pcs. Cables outlet - for lights

Cable outlet from ceiling, length 2 m, 230V, 16A.

5 Pcs. Cables outlet - for smoke detector

Cable outlet from ceiling, length 2 m, 230V, 16A.



Pcs. Socket with Children protection - 1.400 mm above floor surface

Socket with Children protection 230V.

Including special sealing sleeve.



Pcs. Internal presence detector

Internal presence detector. Angle range -  $360^{\circ}$ .

10 Pcs. Smoke detector

Battery powered smoke detector, preparing for future expansion of fire system.

- Pcs. Outside LED light IP44 with motion sensor Outside LED light 15 W IP44, 1 184 lm, with motion sensor, installed above entrance door.
- 8 Pcs. Cables outlet outside for inverter Cable outlet from outside wall, length 4 m, 230V, 16A.
- Pcs. LED light 20 W equivalent to 1x36 W LED light 20 W (2.500 lm) Type: KSL2000M4KS/ND

Equivalent to: 1x36 W (fluorescent light)

Pcs. LED light 41 W - equivalent to 2x36 W

LED light 41 W (5.000 lm) Type: KSL4000M4KS/ND

Equivalent to: 2x36 W (fluorescent light)

Pcs. LED light 38 W IP65 - equivalent to 2x36 W

LED light 38 W IP65 (4.900 lm) Type: VLO5000M2W4ND

Equivalent to: 2x36 W (fluorescent light)

#### Cable drain

- Pcs. Wall opening 150 x 100 mm for cable channel, with cover, without cap Wall opening 150 x 100 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

  This is not included in the price.
- Pcs. F60 wall opening 150 x 100 mm for cable channel, with cover, without cap F60 wall opening 150 x 100 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings are partially protected by installation of Fermacell gypsum boards for fire proofness!.
- Pcs. F60 wall opening 300 x 100 mm for cable channel, with cover, without cap F60 wall opening 300 x 100 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings are partially protected by installation of Fermacell gypsum boards for fire proofness!.
- Pcs. Wall opening 250 x 150 mm for cable channel, with cover, without cap Wall opening 250 x 150 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any

certified solution available. Fire proof protection must be solved localy!!!
This is not included in the price.

- Pcs. F60 wall opening 250 x 150 mm for cable channel, with cover, without cap F60 wall opening 250 x 150 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings are partially protected by installation of Fermacell gypsum boards for fire proofness!.
- Pcs. Wall opening 175 x 175 mm for cable channel, with cover, without cap Wall opening 175 x 175 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

  This is not included in the price.
- Pcs. F60 wall opening 175 x 175 mm for cable channel, with cover, without cap F60 wall opening 175 x 175 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings are partially protected by installation of Fermacell gypsum boards for fire proofness!.
- Pcs. Wall opening 500 x 250 mm for cable channel, with cover, without cap Wall opening 500 x 250 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

  This is not included in the price.
- Pcs. Wall opening 600 x 300 mm for cable channel, with cover, without cap Wall opening 600 x 300 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

  This is not included in the price.
- 30 bm **170/70 2-chamber cable drain Betterman for electrical cabeling**White PVC two chamber cable drain, producer Bettermann 170/70 without supporting metal sheet. Installed under the ceiling.

#### Extra charge for RAL



Unit Extra charge for RAL 6018 / 7022

Extra charge for atypical RAL color option except standard colors RAL 1015, 7035, 9010, 9002.

Not for metallic colors!

We COAH



#### Unit Extra charge for RAL 6018 / 7022

Extra charge for atypical RAL color option except standard colors RAL 1015, 7035, 9010, 9002.

Not for metallic colors!

### Mounting kit

Pcs. Mounting kit - Fermacell - included

Mounting kit - outside - between units

Mounting kit - inside - between units - Fermacell

<u>Including connection set for connections between all three parts of the building (see layout drawing of all three parts connected together).</u>

#### Electrical project

10 Pcs. Electrical project - included

Electrical project for one unit





Habitable modules | Sanitary modules Storage modules | Modular buildings

# alçeco

#### Quotation addressed to:

#### STÓLPI GÁMAR EHF

Klettagardar 5 104 Reykjavik

Tel.: Fax:

E-Mail: asgeir@stolpigamar.is, hilmar@stolpigamar.is

IČO: 460121-1590 DIČ: 142255

Quotation from:

ALGECO s.r.o.

Brnenska 703 686 03 Stare Mesto Czech Republic

Tel.: +420 572 520 861

+420 572 520 870 Fax: +420 572 520 860 E-Mail: algeco@algeco.cz

Price Quotation No.: AL-0013-05-2021-MR-S

www.algeco.cz

Contact person

Michal Moravanský

Tel.:

E-Mail: Michal. Moravansky@algeco.com

# 1. Advantages of Algeco solutions

- Quality level of configurations made from our modules is comparable to brickwork buildings
- From planning to final realization: comprehensive solution from single supplier
- Confident planning thanks to guarantee of fixed price
- Fast implementation and construction development
- Design and equipment according to individual needs
- High level of quality, guaranteed by our own certified production
- Possibility to provide modules of non-standard size
- Utilization of environment friendly materials

# 2. Technical description

**Dimensions** 





Pcs. SX-2 36

Outside dimensions:

Length: 6.010 mm Width: 2.995 mm Height: 3.230 mm

Inside dimensions: Height: 2.750 mm

1 Pcs. SX-2 36

Outside dimensions:

Length: 6.058 mm Width: 2.995 mm Height: 3.230 mm

Inside dimensions: Height: 2.750 mm

4 Pcs. SX-1 39

Outside dimensions:

Length: 9.000 mm Width: 2.995 mm Height: 3.230 mm

Inside dimensions: Height: 2.750 mm

5 Pcs. SX-1 39

Outside dimensions:

Length: 9.025 mm Width: 2.995 mm Height: 3.230 mm

Inside dimensions: Height: 2.750 mm

#### Framework



#### Floor smooth transitions

Preparation for floor smooth transition.

Not including final connections of flooring on transitions between units which must be finished after delivery and connecting of modules together on site.

Price for final installation is not included.



#### SX-1 - Frame - 9 x 3 m units

Welded steel frame made of hollow, chamfered and rolled profiles of EN 1090 standard, 8 reinforced container corners, ventilated roof, permissible load – 2.000 N/m2, rainwater drainage – drainpipes located inside corner stanchions, diameter of drainpipes 50 mm, insulated to prevent freezing. Unit is not stackable.

Construction is welded according EN 1090.

Wind loading: 28m/s.

The steel construction is varnished with a two-component coating system in RAL scale that is resistant to UV rays, climatic influences and corrosion environment C3 (ISO12944-5:2008) on a visible part of the structure. The outside wall sheathing is protected by powder coating.

#### RAL 6018 / 7022.

#### SX-2 - Frame - 6 x 3 m units

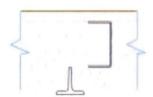
Welded steel frame made of hollow, chamfered and rolled profiles of EN 1090 standard, 8 reinforced container corners, ventilated roof, permissible load – **2.000 N/m2**, rainwater drainage – drainpipes located inside corner stanchions, diameter of drainpipes 50 mm, insulated to prevent freezing. Units are stackable (max. 2 units) according to static regulations. Construction is welded according EN 1090.

#### Wind loading: 28m/s.

The steel construction is varnished with a two-component coating system in RAL scale that is resistant to UV rays, climatic influences and corrosion environment C3 (ISO12944-5:2008) on a visible part of the structure. The outside wall sheathing is protected by powder coating.

#### RAL 6018 / 7022.

#### Floor



#### SX - Floor

Welded floor frame made of rolled and hollow beams and fitted with galvanized 0,75 mm metal sheet covering underneath.

Insulating material: **140 mm of mineral wool**, DIN 4108 (A1 classification, DIN 4102, incombustible)

Vapor barrier - PE foil (PE 0,15mm) U=0, 24 W/m2K

Floor loading: 3.000 N/m2

#### Floor board



#### Standard - Floor board

19 mm chipboard V100 E1 placed on steel load bearing beams.



#### 18 mm seven-layer plywood - units with sanitary

18 mm water resistant limed multiplex placed on steel load bearing beams. Without vapor blocker.



#### Cement - chipboard 22 mm - sanitary units 6 x 3 m

In sanitary units or sanitary parts 22 mm cement chipboard placed on steel load bearing beams.

#### Floor covering





## Marmoleum Real 2,5 mm (FORBO)

Marmoleum Real 2,5 mm, 3146 (FORBO)

## Roof



### SX - Roof

0, 75 mm galvanized profile, profile depth 35 mm, placed on steel roof beams. Insulation: **180 mm of mineral wool**, DIN 4108 (A1 classification, DIN 4102, incombustible).

Vapor barrier – PE foil (PE 0,15mm), U=0,19 W/m2K

## 333 m2 Tyvek DuPont weather barrier

Tyvek DuPont weather barrier.

## Ceiling



#### Fermacell plasterboard EI 30 EN Ceiling

2x10 mm Fermacell gypsum plasterboard. It is placed on ceiling construction by drive screw. Joints of plaster boards are luted and grinded. Rastr 313mm.Boards are coated by double dispersed color. Color is also wear resistive.

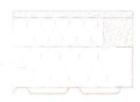
Fire protection from inside to outside only!

Fermacell Construction according to the structure 2S11

## Suspended ceiling system - not to be provided by Algeco

Suspended ceiling system in some units will be supplied and installed by client.

#### Peripheral walls



#### Peripheral wall 110 mm insulation - inner perimeter walls

Galvanized profiled metal sheet 0, 6 mm, profile depth

10 mm. 70 mm – framework made of galvanized metal sheet profiles + 40 mm wooden construction. Insulation 110 mm of mineral wool, DIN 4108 (A1 classification, DIN 4102, incombustible)

<u>Vapor barrier – PE foil (PE 0,15mm) - installed between 70 mm framework and 40 mm wooden profile.</u>

U = 0, 36 W/m2K

## SX peripheral wall ATYP - outer perimeter walls

Galvanized profiled metal sheet 0,6 mm, profile depth

10 mm. 100 mm – framework made of galvanized metal sheet profiles + 40 mm wooden construction. Insulation 140 mm of mineral wool, DIN 4108 (A1 classification, DIN 4102, incombustible)

<u>Vapor barrier – PE foil (PE 0,15mm) - installed between 100 mm framework and 40 mm wooden profile.</u>

U = 0, 24 W / m 2 K

## 237 bm Tyvek DuPont weather barrier

Tyvek DuPont weather barrier.

### Inside facing of the peripheral walls





## Fermacell plasterboards - Inside peripheral walls according to EI30 DP1

1x12.5mm Fermacell gypsum plasterboard. It is placed on peripheral walls by drive screw. Joints of plaster board are luted and grinded. Boards are coated by double dispersed color. Color is also wear resistive. Insulation min. 50mm rock wool with min. density 20 kg/m3.

Fire protection from inside to outside only!

Construction according to the Fermacell structure 3S13



#### Fermacell plasterboards - Inside peripheral walls according to E160 EN for BE/NL

2x15mm Fermacell A1 Firepanel plasterboard. It is placed on peripheral walls by drive screw. Joints of plaster board are luted and grinded. Boards are coated by double dispersed color. Color is also wear resistive.

Fire protection from inside to outside only!

Construction according to the Fermacell structure 3S21 A1

### Parting walls



#### Gypsum board - parting walls rm

12,5 mm gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

50 mm profile structure, mineral wool 40/50 URSA.

12,5 mm gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

Parting walls are affixed to the floor and ceiling by metal U-profiles. Corner connections between parting walls and peripheral walls are luted and sanded. Surface is coated with double layer paint.



### EI60 Partition wall Fermacell / Fermacell gypsum board

12,5 mm Fermacell gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

#### 60 mm profile structure, rock wool 30 kg/m3 insulated.

12,5 mm Fermacell gypsum board. Connections between boards are luted and sanded. Surface is coated with double layer paint.

Parting walls are affixed to the floor and ceiling by metal U-profiles. Corner connections between parting walls and peripheral walls are luted and sanded. Surface is coated with double layer paint.

#### WC cabins

#### 9 WC cabin - Böhme System - for children (lowered height)

System Böhme. There is an empty space between floor and bottom part of the board and between ceilling and top part of the board. 28 mm laminated particleboard fixed in aluminium frame. Doors are accordingly buit-in system. They have white PVC handle, lock which can lock up from inside of cab.

## Windows

## Pcs. ALU window 550 x 550mm, 1-part - TILT - ORNAMENT - RAL 6018

ALU window, 550 mm x 550 mm, ornament glass, Wing is tilt, with rubber gasket and plastic lining.

## Color of the frame: outside RAL 6018 / inside WHITE.

Insulating glass 4/16/4 mm. U = 1,1 W / m2K

Pcs. ALU window 1.100 x 1.100 mm without window blind - TURN - RAL 7022 1- wing ALU window, 1.100 x 1.100 mm, with rubber gasket. Wing is turn only, white fittings Maco, white outside window-sill with powder surface treatment.

Color of the frame: outside RAL 7022 / inside WHITE. Insulating glass 4 / 16 / 4 mm. U = 1,1 W / m2K.

3 Pcs. ALU window 1.100 x 1.100 mm without window blind - FIX - RAL 7022 - VSG safety

1- wing ALU window, 1.100 x 1.100 mm, with rubber gasket. Wing is FIX only, white fittings Maco, white outside window-sill with powder surface treatment.

Color of the frame: outside RAL 7022 / inside WHITE. Insulating VSG safety glass (both sides) 33.1 / 16 / 33.1. U = 1,1 W / m2K.

- Pcs. ALU window 1.100 x 1.100 mm without window blind TILT RAL 7022
  1- wing ALU window, 1.100 x 1.100 mm, with rubber gasket. Wing is tilt,
  white fittings Maco, white outside window-sill with powder surface treatment.
  Color of the frame: outside RAL 7022 / inside WHITE.
  Insulating glass 4 / 16 / 4 mm. U = 1,1 W / m2K.
- Pcs. ALU window 1.650 x 1.650 mm without window blind FIX RAL 7022 VSG safety
  1- wing ALU window, 1.650 x 1.650 mm, with rubber gasket. Wing is FIX only, white fittings Maco, white outside window-sill with powder surface

treatment.

Color of the frame: outside RAL 7022 / inside WHITE.
Insulating VSG safety glass (both sides) 33.1 / 16 / 33.1. U = 1,1 W / m2K.

- Pcs. ALU window 550 x 550mm, 1-part TILT CLEAR RAL 7022

  ALU window, 550 mm x 550 mm, clear glass, Wing is tilt, with rubber gasket and plastic lining.

  Color of the frame: outside RAL 7022 / inside WHITE.

  Insulating glass 4/16/4 mm. U = 1,1 W / m2K
- Pcs. ALU window 550 x 550mm, 1-part FIX CLEAR RAL 7022
  ALU window, 550 mm x 550 mm, clear glass, FIX, with rubber gasket and plastic lining.

  Color of the frame: outside RAL 7022 / inside WHITE.
  Insulating glass 4/16/4 mm. U = 1,1 W / m2K
- Pcs. ALU window 550 x 550mm, 1-part FIX CLEAR RAL 7022 VSG safety
  ALU window, 550 mm x 550 mm, <u>clear</u> glass, FIX, with rubber gasket and plastic lining.
  Color of the frame: outside RAL 7022 / inside WHITE.
- Pcs. ALU window 550 x 550mm, 1-part FIX ORNAMENT RAL 6018
  ALU window, 550 mm x 550 mm, ornament glass, FIX, with rubber gasket and plastic lining.

  Color of the frame: outside RAL 6018 / inside WHITE.

  Insulating glass 4/16/4 mm. U = 1,1 W / m2K

Insulating VSG safety glass (both sides) 33.1 / 16 / 33.1. U = 1.1 W / m2K.

Pcs. ALU window 550 x 550mm, 1-part - TILT - ORNAMENT - RAL 7022

ALU window, 550 mm x 550 mm, ornament glass, Wing is tilt, with rubber gasket and plastic lining.

Color of the frame: outside RAL 7022 / inside WHITE.

Insulating glass 4/16/4 mm. U = 1,1 W / m2K

Outside door

#### 3 Pcs. ALU door 1.100 x 2.200 mm

Aluminium outside door, 1- wing, 1.100 x 2.200 mm, white, VSG- ISOglassing (without middle dividing profile), open to outside, self closure with stopper, corner door frame with rubber sealings. Profile cylindrical lock with three keys.

Color of the frame: outside RAL 7022 / inside RAL 9016.

Clear dimension: 909 x 2.103 mm

#### 2 Pcs. ALU door + window 2.000 x 2.200 mm

ALU door + window, 1- wing door, whole panel 2.000 x 2.200 mm, white, VSG- ISO- glassing (without middle dividing profile), window part is fixed. door wing open to outside, self closure, door frame with rubber sealings. Profile cylindrical lock with three keys.

Including anti-panic lock EN179.

Color of the frame: outside RAL 6018 / inside RAL 9016.

Clear dimension (of door): 1.000 x 2.103 mm

## Master key system for all lockable door - together for all three parts of the

Master key system for all lockable door. Included are 3 pcs of master keys (these are able to unlock all doors) + 156 pcs of individual keys (these are able to unlock individual doors).

## Pcs. Protection of children fingers Finprotect

Protection of children fingers Finprotect

## Inside door

#### 14 Protection of children fingers ATHMER NR-25

Protection of children fingers ATHMER NR-25

T-30 H3D - fireproof door - 2.000 x 2.125 - between two units T-30 H3D fireproof double wing door 2.000 x 2.125, galvanized, self closure on 1 wing, door frame, profile cylindrical lock with anti-panic function EN179

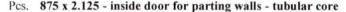
(only priority wing).

Clear dimension: 1.910 x 2.065 mm Frame and door are assembled on site.

Pcs. T-30 H3D - fireproof door - 1.000 x 2.125 - between two units

T-30 H3D fireproof door 1.000 x 2.125, 1-wing, galvanized, self closure, door frame, profile cylindrical lock.

Clear dimension: 915 x 2.065 mm



Wooden door in steel frame 875 x 2.125, HPL foil - white color, tubular **chipboard core**, two hinges, stainless steel rosette and handle / handle, cylindrical lock with three keys. Rubber gasket. Rubber doorstop.

Clear dimension: 800 x 2.075 mm

#### Pcs. 875 x 2.125 - inside door - between two units - tubular core

Wooden door in steel between units frame 875 x 2.125, HPL foil - white color, tubular chipboard core, two hinges, stainless steel rosette and handle / handle, cylindrical lock with three keys. Rubber gasket. Rubber doorstop. Frame and door are assembled on site.

Clear dimension: 800 x 2.075 mm

### Sanitary equipment

Pcs. Washbasin 400x360 - Hot water - in height 850 mm

Ceramic washbasin 400 x 360 including mixing hot/cold tap. Without through-flow heater and extra protected socket, waste water seal, water inlet

and outlet.

Hot water to be provided by client.

4

Pcs. Washbasin 400x360 - Hot water - for children - in height 500 mm

Ceramic washbasin 400 x 360 including mixing hot/cold tap. Waste water seal, water inlet and outlet.

Hot water to be provided by client.



Pcs. Set into the Washbasin - for children

mirror 400x500mm, liquid soap dispenser, a plastic shelf and a metal towel hook .



Pcs. Set for the washbasin

mirror 400x500mm, liquid soap dispenser, a plastic shelf and a metal towel hook .



Pcs. Floor outlet PVC

Floor outlet, diameter 115 mm, grey colored. Outlet is embedded in the floor. It is taken out at the bottom side of the container by the HT-grey tube DN 50.



All fittings and pipes hidden in front wall. Height of front wall ca. 1.400 mm.



Pcs. Folding changing table

Folding changing table, thickness 18 mm, white, installed on the wall with reinforcement at the height of 1000 mm.

4 Pcs. WC for children - H-ca.330mm - hanging on front wall

Ceramic WC for children, hanged on front wall, with PVC seat, water tank, toilet paper holder, toilet accessories.

3 Pcs. Preparation for the kitchen (kitchen is not part of the offer)

Preparation for the kitchen (kitchen is not part of the offer). Inlet pipe 1/2"

Outlet pipe DN50

#### Hot water to be provided by client.

8 bm Front wall - up to the ceiling Front wall - up to the ceiling.

## Inlet/Outlet

10 Pcs. Hot water inlet piping

Hot water inlet piping.



Pcs. Standard - Inlet/Outlet

1 x water stop 3/4", with a water tap and a pressure valve Supply pipeline: aluminium – plastic pipe, white coating. Discharge piping: grey HT – piping, DN 100, no coating 1 x exit pipe through the wall projecting 100 mm out of the wall.

All piping is hidden in front walls.

Pcs. Floor opening with cover 400 x 200 mm

Floor opening with cover 400 x 200 mm. For input electro.

## Heating

2 Pcs. Electric convector 1,0 KW

Electric convector 1.000 W with Thermostat including socket and extra automacic circuit breaker. (For Belgium and Netherlands socket NIKO)

16 Pcs. Electric convector 2,0 KW



Electric convector 2.000 W with Thermostat including socket and extra automacic circuit breaker.

(For Belgium and Netherlands socket NIKO)

Pcs. Electric convector 2,0 KW with ventilator

Electric convector 2.000 W with Thermostat and ventilator IPX4 including socket and extra automacic circuit breaker. (For Belgium and Netherlands socket NIKO)

**Electroinstallation DE** 





Ventilator 230 V, power 90 m3/hour, including white pipe HT - DN 100 for air outlet which is taken out throuht wall module out. From outside of the unit is metal grid with openings.



Pcs. Finishing relay

2

Finishing relay for a ventilator with persistence, fluently adjustable from 3, 6, 12 minutes.



Pcs. Switch - 1.400 mm above floor surface Light switch.

Including special sealing sleeve.



Pcs. Emergency lighting LED - IP65 - with pictogram - indoor and outdoor using

Emergency lighting ECONOMIC LED SA, 1,2 W, stand by time 3 hours, IP65. For indoor and outdoor using. With pictogram.

Pcs. Central distribution box - 1 pc main + 1 pc secondary switch boards

Central distribution box with current protector FI 0,03 A including circuit breaker and equipotential bonding rail. Connection of the cables between units is solved by cable drain, which is leded under the ceiling. Jonits and mounting of the cables is done on the place. Electrical box does not include: terminal block, surge arrester (overvoltage protection).

Electrical drawings of the project are not included.

45 Pcs. Cables outlet - for lights

Cable outlet from ceiling, length 2 m, 230V, 16A.

Pcs. Cables outlet - for smoke detector Cable outlet from ceiling, length 2 m, 230V, 16A.

OFF



Pcs. Socket with Children protection - 1.400 mm above floor surface Socket with Children protection 230V. <u>Including special sealing sleeve.</u>



Pcs. Internal presence detector Internal presence detector. Angle range - 360°.

14 Pcs. Smoke detector

Battery powered smoke detector, preparing for future expansion of fire system.

- Pcs. Outside LED light IP44 with motion sensor Outside LED light 15 W IP44, 1 184 lm, with motion sensor, installed above entrance door.
- Pcs. Cables outlet outside for inverter Cable outlet from outside wall, length 4 m, 230V, 16A.
- Pcs. LED light 41 W equivalent to 2x36 W

LED light 41 W (5.000 lm) Type: KSL4000M4KS/ND

Equivalent to: 2x36 W (fluorescent light)



## Cable drain

- Pcs. Wall opening 150 x 100 mm for cable channel, with cover, without cap Wall opening 150 x 100 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

  This is not included in the price.
- Pcs. F60 wall opening 150 x 100 mm for cable channel, with cover, without cap F60 wall opening 150 x 100 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings are partially protected by installation of Fermacell gypsum boards for fire proofness!.
- Pcs. F60 wall opening 250 x 100 mm for cable channel, with cover, without cap F60 wall opening 250 x 100 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings are partially protected by installation of Fermacell gypsum boards for fire proofness!.
- Pcs. Wall opening 250 x 150 mm for cable channel, with cover, without cap

Wall opening 250 x 150 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

This is not included in the price.

- Pcs. F60 wall opening 250 x 150 mm for cable channel, with cover, without cap F60 wall opening 250 x 150 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings are partially protected by installation of Fermacell gypsum boards for fire proofness!.
- Pcs. Wall opening 175 x 175 mm for cable channel, with cover, without cap
  Wall opening 175 x 175 mm for cable channel, with cover, without cap.
  For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!
  This is not included in the price.
- Pcs. Wall opening 210 x 210 mm for cable channel, with cover, without cap
  Wall opening 210 x 210 mm for cable channel, with cover, without cap.
  For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!
  This is not included in the price.
- Pcs. Wall opening 500 x 250 mm for cable channel, with cover, without cap Wall opening 500 x 250 mm for cable channel, with cover, without cap. For electrical cabeling. If main electro distribution box is used.

  These wall openings aren't protected for fire proofness! We don't have any certified solution available. Fire proof protection must be solved localy!!!

  This is not included in the price.
- 53 bm 170/70 2-chamber cable drain Betterman for electrical cabeling White PVC two chamber cable drain, producer Bettermann 170/70 without supporting metal sheet. Installed under the ceiling.

## Extra charge for RAL



Unit Extra charge for RAL 6018 / 7022

Extra charge for atypical RAL color option except standard colors RAL 1015, 7035, 9010, 9002.

Not for metallic colors!

OM



## Unit Extra charge for RAL 6018 / 7022

Extra charge for atypical RAL color option except standard colors RAL 1015, 7035, 9010, 9002.

Not for metallic colors!

## Mounting kit

1 Pcs. Mounting kit - Fermacell - included

Mounting kit - outside - between units

Mounting kit - inside - between units - Fermacell

<u>Including connection set for connections between all three parts of the building (see layout drawing of all three parts connected together).</u>

## Electrical project

14 Pcs. Electrical project - included

Electrical project for one unit

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# VOGABYGGÐ LEIKSKÓLI



# **SKILALÝSING**

10.12.2021



## Efnisyfirlit

1.	INNGANGUR	3
2.	Jarðvinna og grundun	3
2.1	Jarðvinna	3
2.2	Sökklar	3
2.3	Veitutengingar	3
2.4	Lagnir í lóð	3
3.	Frágangur innanhúss	3
3.1	Niðurhengd loft	3
3.2	Innréttingar á deildum, starfsmannaaðstöðu, matstöð og eldhúsi	4
3.3	Fataklefar barna	4
3.4	Eldhúsinnréttingar	4
3.5	Eldhúsbúnaður	4
4.	Pípulagnir og loftræsikerfi	5
4.1	Almennt	5
4.2	Hiti, frárennsli og neysluvatnskerfi	5
4.3	Loftræsing	5
5.	Raf- og smáspennukerfi	5
5.1	Almennt	5
5.2	Töflur og afldreifingar	
5.3	Lýsing	
5.4	Tenglar	6
5.5	Brunaviðvörunarkerfi	6
5.6	Fjarskiptakerfi	6
5.7	Öryggis- og innbrotakerfi	6
5.8	Myndavélakerfi	6
5.9	Aðgangskerfi	6
6.	HIjóðvist	6
7.	Brunaörvagi	7



#### 1. INNGANGUR

Til stendur að reis bráðabirgða leikskóla í Vogabyggð í Reykjavík. Leikskólinn er 900 m2 að stærð og verður staðsettur á lóð við Naustavog. Um er að ræða hús framleidd af Algeco og þeim er lýst í öðru skjali, sem er fylgiskjal samnings.

Lýsing þessi nær til jarðvinnu og grundunnar, frágangs innanhúss, pípulagna og loftræsingar, raf- og smáspennukerfa, hljóðvistar og brunaöryggis. Verði óskað eftir öðru en lýst er mun þurfa semja sérstaklega um slíkt.

#### 2. JARĐVINNA OG GRUNDUN

#### 2.1 Jarðvinna

Öll jarðvinna vegna framkvæmdarinnar er á ábyrgð leigutaka.

#### 2.2 Sökklar

Leigutaki ber ábyrgð á framkvæmdum vegna sökkla fyrir leikskólann, sökklar skulu vera þannig frágengnir með góðu aðgengi og að hægt sé að leggja húseiningar beint ofan á sökkla og festa niður í samræmi við kröfur framleiðanda um festingar.

### 2.3 Veitutengingar

Leigutaki sækir um heimtaugar og heimæðar fyrir; heitt og kalt vatn, rafmagn, fráveitu og ljósleiðara. Leigutaki ber kostnað af tengigjöldum í samræmi við gjaldskrá Veitna.

### 2.4 Lagnir í lóð

Leigutaki leggur frárennsli frá einingum og út í tengipunkt Veitna.

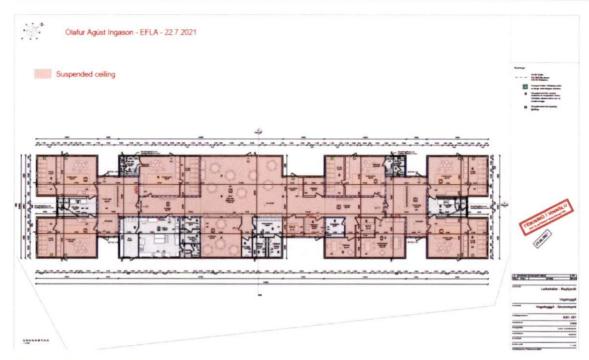
## 3. FRÁGANGUR INNANHÚSS

#### 3.1 Niðurhengd loft

Niðurhengd loft verða 60x60 cm. með innfeldu upphengikerfi og með hljóðísogseiginleikum í samræmi við ráðgjöf hljóðvistarhönnuðar. Plötur skulu vera - þannig að auðvelt sé að losa einstaka plötu til að þjónusta búnað og lagnir ofan við niðurhengd loft.

Niðurhengd loft koma í öll rými nema á salerni, eldhús, búr, þvottarými, ræstirými og munaskáparými. Sjá má mynd hér að neðan þar búið er að skyggja þau rými þar sem niðurhengd loft verða sett.



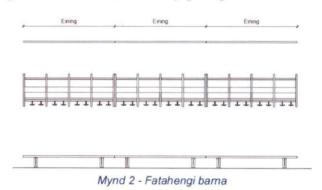


Mynd 1 - Niðurhengd loft í leikskóla

3.2 Innréttingar á deildum, starfsmannaaðstöðu, matstöð og eldhúsi Allar fastar innréttingar á deildum, starfsmannaaðstöðu, matstöð og eldhúsi eru á ábyrgð leigutaka.

## 3.3 Fataklefar barna

Innréttingar og fatahengi í fataklefa barna eru á ábyrgð leigutaka



## 3.4 Eldhúsinnréttingar

Allar innréttingar í eldhúsi koma eru laus búnaður sem Leigutaki sér um að innrétta

## 3.5 Eldhúsbúnaður

Allur eldhúsbúnaður eru á ábyrgð Leigutaka

## 4. PÍPULAGNIR OG LOFTRÆSIKERFI

#### 4.1 Almennt

Almennt verða lagnir faldar ofan kerfislofta eða í veggjum og gólfum þar sem því verður við komið. Á salernum verða lagnir utan á liggjandi að hreinlætistækjum. Allar lagnir verða fullfrágengnar og útteknar af byggingavfirvöldum.

## 4.2 Hiti, frárennsli og neysluvatnskerfi

Ofnar uppfylla varmaþörf hvers rýmis miðað við innra skipulag. Hitaveita verður notuð til að uppfylla varmaþörf húsa.

Varmaþörf er reiknuð í samræmið við ÍST 66 og byggingareglugerð. Hámarkshitastig ofna verður 40°C nema þeir verði sérstaklega varðir fyrir snertingu notenda. Stýring ofna verður sjálfstæð fyrir hvern ofn.

Heitt neysluvatn verður upphitað kalt vatn. Hámarkshitastig á heitu neysluvatni á svæðum þar sem börn geta verið er 38°C, annar staðar er hámarkshitastig 65°C. Hringrás verður á heitu neysluvatni.

Fullbúnar neysluvatnslagnir verða lagðar að öllum vöskum og salernum. Salerni koma fullbúin frá framleiðanda húseininga. Sjá nánar tæknilýsingu framleiðanda.

Fituskilja verður á frárennsli frá eldhúsi og verður hún hönnuð samkvæmt viðeigandi stöðlum og reglugerðum.

Allar lagnir að tækjum í eldhúsi verða lagðar úr ryðfríu stáli, utan á liggjandi.

### 4.3 Loftræsing

Vélrænni loftræsingu, innblæstri og útsogi, verður komið fyrir í öllum lokuðum rýmum samkvæmt byggingareglugerð. Í íverurýmum barna er gert ráð fyrri 7 l/s ferskt loft á barn.

Eldhúsútsog er sjálfstætt með heilsoðnum stokkum og þakblásara. Háfur yfir eldunarlínu, ofni, helluborði og veltipotti, er á ábyrgð leigutaka.

Loftræsing verður með einföldu sjálfstæðu stýrikerfi.

## 5. RAF- OG SMÁSPENNUKERFI

#### 5.1 Almennt

Almennt verða meginlagnaleiðir netstrengstigar ofan kerfislofta, raflagnir frá framleiðanda eininga verða verða í veggjum á meðan allar lagnir sem lagðar eru eftirá verða utanáliggjandi. Miðað er við að lagnir að rafmagnsofnum verða innfelldar og til staðar skv. lýsingu framleiðanda eininga. Lagnir í eldhúsi verða utanáliggjandi.

## 5.2 Töflur og afldreifingar

Sett verður ný aðaltafla í inntaksrými, miðað er við 200A heimtaug. Greinatöflur verða settar í sitthvorn enda byggingar. Sérstök greinitafla verður fyrir eldhús.

Möguleiki verður að setja hleðslustöðvar fyrir rafbíla á bílastæðum, aflfæðing fyrir þessar stöðvar tekur mið af álagi hverju sinni með álagstýringu. Gert verður ráð fyrir lagnaleið frá töflu og út á bílastæði, annar búnaður og uppsetning er á hendi leigutaka.

## 5.3 Lýsing

Miðað er við að ÚT-lýsing og útilýsing komi með einingum, einnig að lampar í geymslur, salerni, eldhús og tæknirými komi með gámum. Sjá nánari upplýsingar í tæknilýsingu framleiðanda.

Almenn neyðarlýsing á opnum svæðum og flóttaleiðum verður innfelld í kerfisloft, öll neyðarlýsing verðu með rafhlöðum með a.m.k. 60 mín. endingu.

Aðrir lampar verða innfelldir í kerfisloft, almennir lampar verða 600x600 DALI/Push dimmer lampar. Innfelld strokkljós verða á völdum stöðum.

Miðað er við að ljósastýring á heimstofum (deildum) og sameiginlegum rýmum verði stýrð með DALI rofum og hreyfiskynjurum. Lýsingu í geymslum, salernum o.þ.h. verður stýrt af hefðbundnum hreyfiskynjurum eða rofum.

### 5.4 Tenglar

Miðað er við að almennir tenglar komi með einingum. Fjöldi tengla kemur fram tæknilýsingu framleiðanda eininga.

Í eldhúsi verður gert ráð fyrir 3 kæliskápum og 2 frystiskápum.

-	100-120l gufupottur	22	kW
-	20 skúffu ofn	19	kW
-	Tvöfalt helluborð	5	kW
-	Húdd uppbvottavél	6	kW.

#### 5.5 Brunaviðvörunarkerfi

Miðað er að setja sjálfvirkt brunaviðvörunarkerfi, reykskynjara í öll rými og handboða við flóttaleiða útganga samkvæmt leiðbeiningum um sjálfvirka brunaviðvörun 6.038 HMS. Stjórnstöð staðsett í anddyri.

#### 5.6 Fjarskiptakerfi

Miðað er við allar fjarskiptalagnir verði Cat5e. Miðað er við einn tvöfaldur tölvutengill komi við borð á heimasvæði, einnig er miðað við tvöfaldan tölvutengil fyrir WIFI á hverju heimasvæði fyrir ofan niðurhengt loft. Almennt er miðað við að WIFI samband verði í allri byggingunni, einn tvöfaldur tölvutengill í öllum vinnurýmum starfsfólks og fundarherbergi.

#### 5.7 Öryggis- og innbrotakerfi

Leigutaki útvegar öryggis- og innbrotakerfi og greiðir fyrir leigu og þjónustu á kerfinu á leigutímanum.

## 5.8 Myndavélakerfi

Ekki innifalið í samningi við leigusala.

#### 5.9 Aðgangskerfi

Ekki innifalið í samningi við leigusala.

## 6. HLJÓÐVIST

Hljóðvistarhönnun á leikskóla er í samræmi við Byggingarreglugerð 112/2012 með breytingum. Byggingin er skilgreind í flokki C í samræmi við ÍST45:2016. Byggingin mun uppfylla þetta nema



í tilviki kröfu um högghljóðstig milli rýma og verður ekki hægt að ná kröfum vegna léttrar uppbyggingar gólfa. Ekki er gert ráð fyrir sérstökum aðgerðum s.s. sérstöku gleri vegna umferðar eða hávaða frá iðnaði. Sjá nánar í Hljóðvistargreingerð I með aðaluppdráttum

## 7. BRUNAÖRYGGI

Byggingar skulu hannaðar í samræmi við kröfur Byggingarreglugerðar og gildandi staðla



**Design criteria** 

## **DESIGN CRITERIA**

DOCUMENT TITLE	PROJECT
21036 – Kindergarden Reykjavík	Kingergarden Reykavík
DISCIPLINE All disciplines	
REPORT STATUS	
☐ Draft	
☐ Published	

## **VERSION HISTORY**

NO.

Α

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## Table of content

	Access	1
	Insulation	1
	Acoustic	2
1	Fire safety design	2
2	Stuctural design	2
3	Ventilation (HVAC)	3
5	MEP	3
6	Lighting	5
7	Safety	6
9	Attachment	6
10		



## Access

## 1.1 Introduction

It is planned to build a kindergarden from 600-900 m<sup>2</sup>. It will be a single floor building made of prefabricated units. The building shall be designed for access for all (Aðgengi fyrir alla).

## 1 1.2 Design Criteria

All designs, materials and finishes shall comply with applicable laws, regulations and standards as applicable. The building shall be designed in accordance with current Icelandic building regulation 112/2012.

#### 1.2.1 Main entrances and other indoor traffic routes

Traffic dimensions of the main entrance doors shall be at least 0.9x2.07m and the traffic dimensions of the interior doors at least 0.8x2.0m (br. 112/2012, section 6.1)

The maximum height difference at the main entrance can only be 25mm between outside and inside. All slopes and height differences, both outside and inside, needs to be solved according to Access for all (Aðgengi fyrir alla).

#### 1.2.2 Bathroom and access for the disabled

Minimum one of the employees' toilets must be designed for disabled . All Children's toiletsmust be designed in the way that it is possible to easily change the accessibility so it fulfills the needs of people with reduced mobility.

## 1.2.3 Escape routes

## See section 4 on fire protection

## Insulation

## 2.1 Introduction

The building is insulated and heated in all respects and shall meet the traditional requirements of the Icelandic Building Regulation 112/2012.

## 2.2 Design Criteria

The total conductivity loss of the building must be within the limits of building regulations. The maximum U-value of building components will be in accordance with the table in Art. 13.3 in the Icelandic Building Regulation 112/2012

Building components	Allow maxim	num U-value (W/m²K)
	Ti ≥ 18°C	18°C >Ti ≥10°C
Roof	0,20	0,30
External wall	0,40	0,40
Light external wall	0,30	0,40
Windows		
(frames, glass weighted average, k	-glass)2,0	3,0
Doors	3,0	no demand
Skylight	2,0	3,0



Floor on filling	0,30	0,40
Floor to unheated space	0,30	0,40
Floor to outdoor space	0,20	0,40
External walls, weighted average		
(wall surfaces, windows and doors)	0.85	no demand

#### 2.3 Insulation

Exterior walls, roofs and floors shall meet the requirements of the Icelandic Building Regulation 112/2012. Heat loss in the ventilation system shall be taken into account when calculating the combined total heat loss of the building.

### 2.4 Moisture

The building must be designed and finished in such a way that it will not be damaged by moisture due to accumulated moisture sealing.

Wet rooms (Votrými) must be designed so that no damage occurs due to the use of water. Drains shall be in all wet rooms and other spaces where there is a risk of leakage with sufficient floor slope to drain.

## Acoustic

## 3.1 Introduction

Acoustic design is based on the requirements for soundproofing according the Icelandic building regulation 112/2012.

The minimum requirement of sound quality is defined as Category C in the standard ÍST 45: 2016. requirements must be fulfilled as minimum requirements and will be based on meeting at least the requirements for sound category C.

#### 3.2 Design criteria

Acoustic design in this project is mainly acoustic design in spaces where children are playing, living rooms, toilets, corridors and halls, and noise from technical equipment must also be limited. Other factors are e.g. sound insulation of walls, windows, doors, floors and roofs with regard to outside noise or other noise.

## 4 3.3 Other information

The outdoor noise level on each plot must be examined separately in consultation with the buyer.

## Fire safety design

5

#### 4.1 Introduction

See the attached memorandum from Örugg Verkfræðistofu.

## Stuctural design

#### 5.1 Introduction

Stuctural design shall be in accordance with Eurocode standards (and the Icelandic National Annexes for each Eurocode part) and the Icelandic Building Regulation 112/2012 (Byggingarreglugerð 112/2012).



## 5.2 Design criteria

#### Codes of Practice

The following standards shall be used for the structural design:

## Eurocode 0: Basis of design

Basis of structural design (ST EN 1990:2002/NA:2011)

#### **Eurocode 1: Actions on structures**

Part 1-1: General actions – Densities	. self-weight	t.
---------------------------------------	---------------	----

Part 1-7: General actions - Accidental actions

rait 1 1. General actions Densities, sen weight,	
imposed loads for buildings,	ÍST EN 1991 1:2002/NA:2010]
Part 1-2: General actions – Actions on structures exposed to fire	(ST EN 1991-1-2:2002/NA:2010]
Part 1-3: General actions – Snow loads	ÍST EN 1991-1-3:2003/NA:2010]
Part 1-4: General actions – Wind actions	ÍST EN 1991-1-4:2005/NA:2010]
Part 1-5: General actions – Thermal actions	ÍST EN 1991-1-5:2003/NA:2010]
Part 1-6: General actions – Actions during execution	ÍST EN 1991-1-6:2005/NA:2010]

(ST EN 1991-1-7:2006/NA:2010)

## Ventilation (HVAC)

## 6.1 Introduction

The building shall be ventilated in accordance with the Icelandic building regulations 112/2012, chapters 10 and 14. Requirements for air exchange in schools shall be attached to section 10.2.6 in br. 112/2012.

## 6.2 Design criteria

Good and healthy indoor air must be ensured. Intake for fresh air and exhaust of polluted air must be at least  $5 \, \text{I} / \text{s}$  for each child and at least  $7 \, \text{I} / \text{s}$  for individuals 6 years and older. At a minimum, however, the amount of fresh air shall be  $0.35 \, \text{I} / \text{s}$  per m² total floor area while the building or individual spaces are in use. When a building is not in use, the amount of fresh air must be at least  $0.2 \, \text{I} / \text{s}$  per floor area.

Living spaces (íverurými) will be ventilated with mechanical ventilation acc. The Icelandic Building Regulations 112/2012. Air is blown into the rooms and drawn out from the rooms and toilets. There will also be windows that can be opened in the rooms.

The ventilation systems will have heat recovery with 70% efficiency or higher.

There will be a special extraction from kitchen hoods and is therefore thrown up to the roof.

## MEP

#### 7.1 Introduction

Leggja skal frárennsli, neysluvatn, hitakerfi og raflagnakerfi samkvæmt byggingarreglugerið 112/2012 ásamt tilheyrandi stöðlum.

## 7.2 Design criteria

Hannað er eftir íslensku byggingareglugerðinni 112/2012.:

- ÍST 66:2016, Varmatap húsa / Heat loss from buildings
- ÍST 67:2013 Vatnslagnir / Domestic water supply installations



- ÍST 68:2013 Frárennslislagnir / Sanitary Drainage Wastewater Installations
- ÍST 69:2016 Umreikningur á varmagjöf ofna
- ÍST EN 442-1:2014 Geisla- og hringstreymisofnar Hluti 1: Tæknilýsing og kröfur / Radiators and convectors - Part 1:Technical specifications and requirements
- ÍST EN 442-2:2014 Radiators and convectors Part 2: Test methods and rating

## 7.2.1 Heating

The building is heated with hot water from Veitur ohf.

Heating pipes shall be above the suspended ceiling and pipes are to be taken down vertically on the wall to the radiators.

The heating system must be closed with a heat exchanger, the maximum temperature of the radiators and heating pipes must not exceed 40 ° C

Heat loss and power demand are calculated according to building regulations and ÍST66.

### 7.2.2 Proteble water

Prteble cold water is used directly from the water supply.

Portable hot drinking water comes from Veitur ohf and then portable hot drinking water is mixed with portable cold water at places of use to adjust the water temperature in the taps according to the needs of different users and in accordance with the requirements of building regulations.

The design flow of hot and cold water from different connection points will be in accordance with ÍST67.

#### Vatnshiti við notkunarstað:

Kitchen and utility room:  $\leq 65^{\circ}\text{C}$ Faucets (staff):  $\leq 65^{\circ}\text{C}$ Faucets where children are:  $38^{\circ}\text{C}$ 

## 7.2.3 Drainage pipes

The design flow of effluent from different connection points will be in accordance with ÍST67. Indoor drainage pipes shall be thick-walled, sound-insulating PP (ÍST EN 1451 and ÍST EN 13501-1). A kitchen separator shall be installed at the kitchen, a grease separator shall be designed according to ÍST EN 1825-2.

Drainage shall be connected to the drainage system of Veitur ohf.

Indoor rainwater pipes shall be made of PE100 SDR26 (EN 12201) with Armaflex or equivalent insulation. The design precipitation of rainwater pipes is 110 l / s / ha. Rainwater pipes run from roof drains to Veitur ohf's rainwater pipes

## 7.3 Electrical and communications

The building's electrical and telecommunications cables, design based on the requirements of the Icelandic building regulation and relevant applicable standards

#### Low-tension minimum requirements:

Table cabinets overflow space 30%.

Low-tension sockets shall meet the needs of each space.

#### Extra-low voltage minimum requirements:

Connector cabinet small voltage 600x600x600mm

Wireless points should cover all building spaces.

Computer / telephone sockets must meet the needs of each workspace.



Extra-low voltage connection cabinet not located in the inlet space of the district heating system.

## Burglary system:

Control center dialing equipment.

Motion detectors as needed.

#### Regulations:

Technical terms of connection of electric utilities / Tæknilegir tengiskilmálar rafveitna.

Regulation on electrical installations. / Reglugerð um raforkuvirki.

Rules of The Housing and Construction Authority. / Reglur Húsnæðis og mannvirkjastofnunar.

Rules of the Telecommunication Administration. / Reglur Fjarskiptastofnnar.

Building Regulation 112/2012.

#### Standards:

The following standards shall be used in the design.

Electrical materials, devices and equipment shall be manufactured in accordance with the relevant CENELEC and IEC standards, in particular the following standards.

IEC 60227	Polyvinyl chlori	de insulated cables of rated voltages up to and including 450/750 V.
EN 60228	IEC 60228	Conductors of insulated cables
EN 60332	IEC 60332-3	Test on eletric cables under fire conditions – Part 3: Tests on bunched wires
or cables.		
EN 60439	IEC 60439	Low voltage switchgear and controlgear assemblies.
EN 60529	IEC 60529	Degrees of protection provided by enclosures (IP code). IEC 60754 Test on
	gases evolved	during combustion of materials from cables.
EN 60811	IEC 60811	Common test methods for insulating and sheathing materials of electric
	and optical cab	les.
EN 60898	IEC 60898	Circuit breakers for overcurrent protection for household and similar
	installations.	
EN 60947	IEC 60947	Low voltage switchgear and controlgear.
EN 61034	IEC 61034	Measurement of smoke density of cables burning undir defined conditions.
EN 61000	IEC 61000	Electromagnetic compatibility.
HD 516	Guide to use of	f low-voltage harmonized cables.
ÍST 200	Raflagnir byggi	nga / Electrical installations of buildings

Requirements for electrical equipment: It is generally required that electrical materials and their equipment, as well as all appliances and lamps, be approved by the electrical tests approved by The Housing and Construction Authority.

## Lighting

## 8.1 Introduction

The building is a kindergarden and the lighting of all spaces and areas must meet the requirements of the Icelandic building regulation 112/2012 together with the enclosed lighting.

## 8.2 Design criteria

Description of minimum requirements of lighting:

Brightness not less than 300lux.

Light temperature 3000 K> 80 CRI.

Glare UGR 19.

System ceiling lamps 600x600 mm dimmable LED lamps e.g. DALI / pushdim.



IP values: Lamps must meet the IP values of each room.

## Safety

## 9.1 Introduction

When designing, care must be taken to minimize the risk of accidents. The necessary measures must be taken to prevent accidental hazards for all users of the building.

## 9.2 Design criteria

The building must, among other things, comply with the following aspects of the Icelandic Building Regulation 112/2012 in connection with safety issues:

- Fire protection
- Emergency lighting
- · General description
- Escape routes
- Automatic door opening device
- Fall protection
- · Approach and finishing of the site

## Attachment

10

Attachment A: Memorandum, Örugg Verkfræðistofa

Jo H





FLOOR: SHOWER ROOMS - CERAMIC TILES + PLINTH REST - MARMOLELMI 25mm WALLS - GHOWERS - CEPA MARKED RECESSED SIDES OF THE BUILDING RAL5018, REST RAL7022 WINDOWS AND DOORS IN THE SAME COLOR AS CONTAINER

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