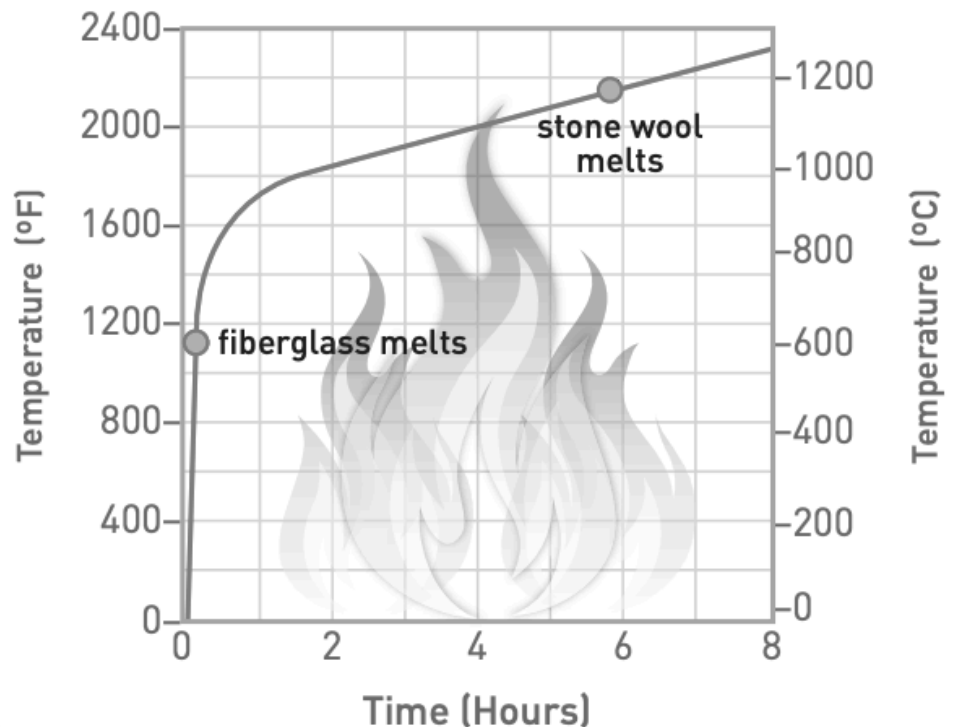


**NORSTEEL
BUILDINGS**

ROCKWOOL FIRE- RATED INSULATION ASSEMBLY MANUAL

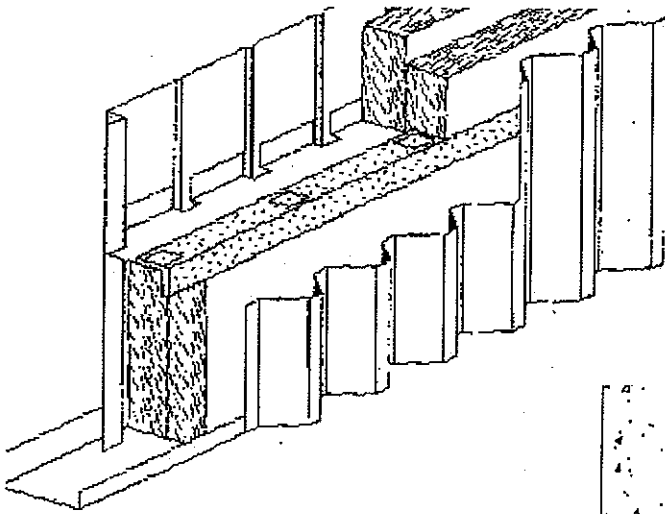


FIRE-RATED EXTERIOR NON-LOADBEARING SHEET STEEL WALLS

FIRE RESISTANCE RATING = 1 HOUR

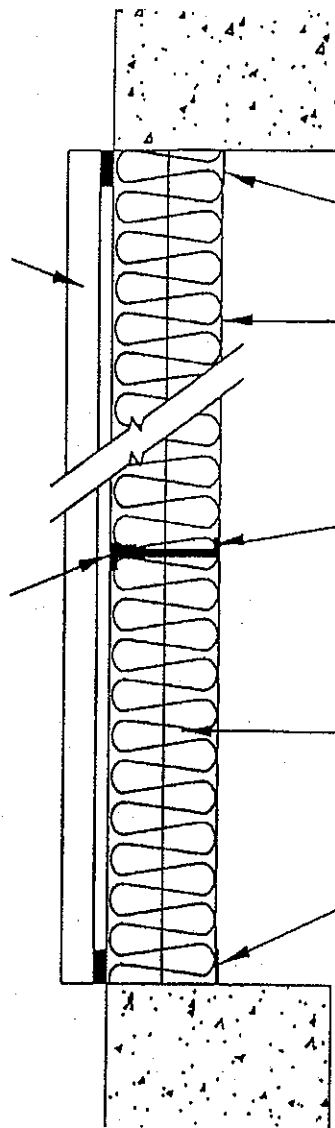
Equivalent Opening Factor at 2h (FEO) = 0.02

ULC Design No. W 605



Exterior cladding: Corrugated prepainted sheet steel panels, to various profiles and widths. Panels minimum 0.46 mm thick, fastened to Z-bar sub-girts by 19 mm long sheet metal screws maximum 305 mm on centre. Lap joints of adjacent panels fastened by 19 mm long sheet metal screws maximum 406 mm on centre.

Ceramic fibre strip: 128 kg/m³ density, minimum 100 mm wide x 13 mm thick strips, attached to Z-bar sub-girt with stick pins spaced 250 mm on centre.



Flashing channels: 152 mm wide x 1.52 mm thick sheet steel with 45 mm and 76 mm flanges, maximum 406 mm on centre, fastened to concrete frame with 6.4 mm x 45 mm concrete anchors (top and bottom).

Steel liner: Panels fabricated from minimum 0.61 mm thick sheet steel, fastened to flashing channels by 19 mm long sheet metal screws spaced maximum 305 mm on centre. Side lap joints sealed with factory-applied caulking and secured with 19 mm long sheet metal screws maximum 305 mm on centre.

Z-bar sub-girt: Minimum 152 mm wide x 1.22 mm thick sheet steel Z-bars with 25 mm and 38 mm flanges, maximum 1525 mm on centre, fastened to steel liner by 19 mm long sheet metal screws spaced maximum 250 mm on centre.

Mineral wool insulation: RHT 605 (96 kg/m³ density) supplied in 76 mm thick sheets 610 mm x 1220 mm. Two layers installed with vertical and horizontal joints staggered.

Fire Side

* Provisions for lot testing may be required, consult manufacturer.*

ROXUL®

The Better Insulation™

Technical Product Information

BOARD INSULATION 15080

RHT™ 605

General Product Information:

ROXUL® products are mineral wool fibre insulations made from basalt rock and slag. This combination results in a non-combustible product with a melting point of approximately 2150°F (1177°C), which gives it excellent fire resistance properties. ROXUL mineral wool is a water repellent yet vapour permeable material.

Description & Common Applications:

The RHT™ 605 product is a non-combustible, semi-rigid mineral wool insulation boards that is lightweight, water repellent and designed for high temperature applications where durability and some flexibility are required. Common application areas for the RHT605 board insulation are fire rated exterior non-loadbearing sheet steel walls, where a one hour fire resistance rating is required.

Compliance and Performance:

ASTM C 612	Mineral Fiber Block and Board Thermal Insulation	Type IVB, Complies
CAN/CGSB 51.10-92	Mineral Fibre Board Thermal Insulation	Type 2, Class 4
Fire Performance:		
CAN4 S114	Test for Non-Combustibility	Non-Combustible
CAN/ULC S102	Surface Burning Characteristics	Flame Spread = 0 Smoke Developed = 0
Maximum Service Temperature:		
ASTM C 411	Hot Surface Performance	In Compliance with ASTM C612 @ 1200°F (650°C)

Dimensional Stability:

ASTM C 356	Linear Shrinkage	1.64% @ 1200°F (650°C)
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Moisture Resistance:

ASTM C 1104	Moisture Sorption	0.01%
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Corrosion Resistance:

ASTM C 665	Corrosiveness to Steel	Passed
ASTM C 795 *	Stainless Steel Stress Corrosion Specification as per Test Methods C871 and C692: U.S. Nuclear Regulatory Commission, Reg. Guide #1.36: U.S. Military Specifications MIL-I-24244 (all versions including B and C)	Conforms

Thermal Resistance:

ASTM C 518 (C 177)	R-value/inch @ 75°F RSI value/25.4 mm @ 24°C	4.2 hr.ft².F/Btu 0.75 m²K/W
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Maximum Service Temperature:

1200°F (650°C) ASTM C 411

Dimensions:

24" (width) x 48" (length)
610 mm (width) x 1219 mm (length)

3" (76mm) Thickness

Other ROXUL Products:

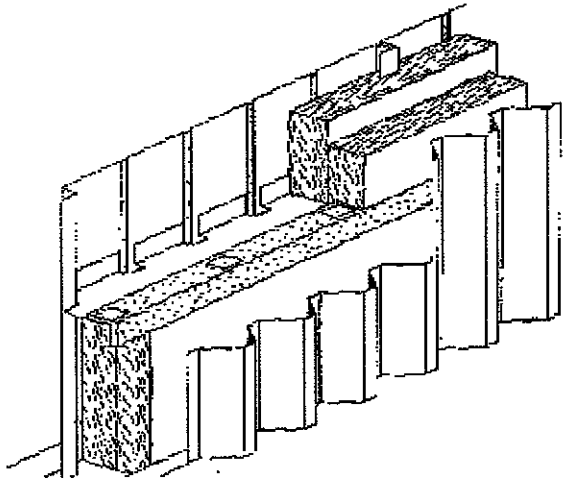
Please consult ROXUL for all your insulation needs. We have an extensive range of products for all applications from pipe insulation to commercial products to residential batts. ROXUL invites all inquiries and will act promptly to service all of your requirements.

Key Application Qualifiers:

- Easy to install
- Service temperature 1200°F (650°C)
- Non-combustible
- Lightweight
- Can be fabricated/laminated
- Excellent thermal resistance
- Low moisture sorption
- Good compressive resistance
- Non-corrosive
- Chemically inert
- CFC and HCFC free product and process
- Made from natural & recycled materials

LISTED





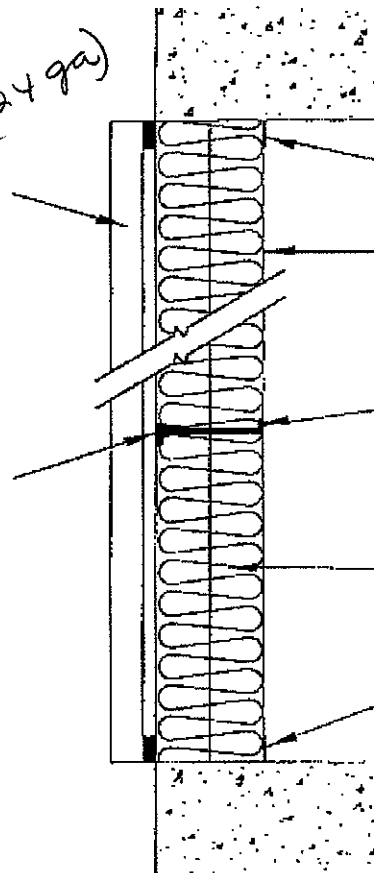
FIRE-RATED EXTERIOR NON-LOADBEARING SHEET STEEL WALLS

**FIRE RESISTANCE RATING = 2
HOURS**

**ULC Design No. W 606
UL Design No. U 655**

Exterior cladding: Corrugated pre-painted sheet steel panels, to various profiles and widths. Panels minimum 0.61 mm thick, fastened to Z-bar sub-girts by 19 mm long sheet metal screws maximum 305 mm on centre. Lap joints of adjacent panels fastened by 19 mm long sheet metal screws maximum 405 mm on centre. (24 ga)

Ceramic fibre strip: 128 kg/m³ density, minimum 100 mm wide x 13 mm thick strips, attached to Z-bar sub-girt with stick pins spaced 250 mm on centre.



Flashing channels: 200 mm wide x 1.52 mm thick sheet steel with 45 mm and 76 mm flanges, maximum 305 mm on centre, fastened to concrete frame with 6.4 mm x 41 mm concrete anchors (top and bottom).

Steel liner: Panels fabricated from minimum 0.61 mm thick sheet steel, fastened to flashing channels by 19 mm long sheet metal screws spaced maximum 305 mm on centre. Side lap joints sealed with factory-applied caulking and secured with 19 mm long sheet metal screws maximum 305 mm on centre. (24 ga)

Z-bar sub-girt: Minimum 200 mm wide x 1.22 mm thick notched sheet steel Z-bars with 25 mm and 45 mm flanges, maximum 1525 mm on centre, fastened to steel liner by 19 mm long sheet metal screws spaced alternately 120 mm and 200 mm on centre.

Mineral wool insulation: Roxul FireWall™606 (72 kg/m³ density)**** supplied in 102 mm thick sheets 610 mm x 1220 mm. Two layers installed with vertical and horizontal joints staggered.

Fire Side

**** "Provisions for lot testing may be required, consult manufacturer."

***** Manufactured in Milton, Ontario

Note:

As ROXUL Inc. has no control over installation design and workmanship, accessory materials or application conditions, ROXUL Inc. does not warrant the performance or results of any installation containing ROXUL Inc's. products. ROXUL Inc's. overall liability and the remedies available are limited by the general terms and conditions of sale. This warranty is in lieu of all other warranties and conditions expressed or implied, including the warranties of merchantability and fitness for a particular purpose.

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