

SUPREME AIR SYSTEMS LTD.

6660-D ORDAN DRIVE UNIT-D

MISSISSAUGA, ONTARIO

L5T 1J7

TEL: (905) 565 8666, FAX: (905) 565 8633

Attn: Hector Drolet
UMA Engineering
200 - 2100 8th Street East
Saskatoon, SK

Dear Mr. Drolet

This is with reference to the Project File No. E683-001-01.

Please find attached the requested information which includes almos: similar UCL approved walls drawings, insulation details and other supporting documentation.

If you need any further information, please feel free to contact me at your convenience.

Best Regards and I remain.


R. Ahmed, P.Eng.
Vice President (Engineering)

Sprayed-applied fire-resistive material designated "CAFCO HEAT-SHIELD" spray applied with "Type 2" adhesive in the ratio of 1 part fibre to 0.75 parts adhesive by mass. Adhesive to be premixed with water in the ratio of 1:6 by volume.

Marking: ULC label on each bag of material and on each container of adhesive.

JOHNS MANVILLE CANADA INC., Inalshil, AB T4G 1A2

Fibreglass batts and blankets classified as noncombustible and designated as "Type 1 Building Insulation".

Marking: ULC label on each bag.

MESA INSULATION, A Johns Manville Company, Fruita, CO 81521

Mineral and fibre boards designated "Super Firetemp L" and "Super Firetemp M".

Marking: ULC label on each carton or package.

MINNESOTA MINING & MFG. CO., St. Paul, MN 55144-1000

Ceramic fibre, Type "FireMaster" blanket or bulk.

Marking: ULC label on each bag or roll.

OLYMPIC MANUFACTURING GROUP, INC., Agawam, MA 01001

Spun aluminum roof drain body, maximum diameter 152 mm.

Copper alloy roof drain body, maximum diameter 152 mm.

Marking: ULC label on each roof drain body.

STO CORP., Atlanta, GA 30336-5609

Cementitious mixtures designated as Type "STO Mineralite", Type "STO Plaster FR", Type "STO Ground Coat C-FR", Type "STO Ground Coat C-UL", and Type "STO Coating Type BTS-NC".

Marking: ULC label on each bag.

THERMAL CERAMICS, A Division of Morgansite Canada Corporation, Burlington, ON L7M 1L1

Ceramic fibre, Type "FireMaster" blanket or bulk.

Marking: ULC label on each bag or roll.

Partition Panel Units (40 U18.15)

Partition panel units are prefabricated panels consisting of steel facing and framing containing factory or field applied insulation and gypsum board or gypsum panels on wood framing with factory or field applied insulation. These partition panel units are field erected to form interior or exterior bearing or non-bearing walls as shown in the illustration of designs indicated in the individual listings.

For illustrations of designs, see Fire Resistance Ratings under Guide No. 40 U18.

Properties of the partition panel units, other than those related to fire resistance, were not investigated in the establishment of this classification.

Listing Service - Partition panel units are listed under the Label Service of Underwriters' Laboratories of Canada. Under this Service, periodic examinations and tests are conducted on samples selected from current production and stock.

Each panel of listed partition panel units bears a label which reads:



UNDERWRITERS' LABORATORIES OF CANADA

LISTED

PARTITION PANEL UNIT

Form No. _____ Issue No. _____ C

together with reference to the use of the material as a component in the fire resistant assemblies shown in the individual listings.

The ULC label or listed marking on a product is the only evidence provided by Underwriters' Laboratories of Canada to identify products which have been produced under the Listing and Follow-Up Service.

Label Service

CAPE DURASTEEL LIMITED, Wellingborough, England NN8 4HB

Prefabricated building panel designated "Durasteel" consisting of fibre-cement with galvanized steel facing sheets for use in Design No. W005.

Marking: ULC label on each panel.

ROXUL INC., Milton, ON L9T 3H3

Prefabricated building panels for use in Design No. W007.

Marking: ULC label on each panel.

Precast Concrete Units (40 U18.17)

This classification includes precast concrete slabs and planks, hollow or solid, for use in bearing walls and floor or roof assemblies of the kind indicated in the following individual listings. The units are cast at the plant and consist of Portland Cement and fine and coarse natural or processed aggregates. The reinforcement may be wire fabric, deformed bars, and/or high tensile strength wire strand. The fire resistance of buildings using precast concrete units covered by the following listings relates to the design illustrations under Guide No. 40 U18. (Fire Resistance Ratings).

Noncombustible Materials (40 U18.14.14)

Noncombustible materials are elementary building materials that meet the criteria for noncombustibility specified in the Standard Method of Test for Determination of Noncombustibility in Building Materials, CAN4-S114M.

Materials under this classification are intended for use as building materials in noncombustible construction and where the National Building Code of Canada stipulates noncombustible materials. The intended use of the product (i.e. insulation) is specified under the individual manufacturer's listings.

The thermal conductivity, vapour resistance, washability, structural and other properties have not been investigated under this category.

Authorities having jurisdiction should be consulted before application.

Listing Service - Noncombustible materials are listed under the Label Service of Underwriters' Laboratories of Canada. Under this Service, periodic examinations and tests are conducted on samples selected at random from current production and stock.

Each package of listed noncombustible material bears a label which reads:



UNDERWRITERS' LABORATORIES OF CANADA
LISTED

(Noncombustible Material)

Issue No. _____ C

* Intended use of product

together with reference to the CAN4-S114M Standard.

The ULC label or listed marking on a product is the only evidence provided by Underwriters' Laboratories of Canada to identify products which have been produced under the Listing and Follow-Up Service.

Label Service

A/D FIRE PROTECTION SYSTEMS INC., Scarborough, ON M1B 1Y4

Mineral fibre batts designated "Firebarrier".

Mortar compound designated "A/D Firebarrier Mortar".

Comeritious mixture designated "A/D Type 5".

Marking: ULC label on each bag of insulation and mortar powder.

ALCAN CABLE, Division of Alcan Aluminum Corp., Williamsport, PA 17701

Aluminum alloys, designated "AA-1200", "AA-5052", and "AA-5154A", nominally 9.53 mm, 12.70 mm, or 19.05 mm wide by 0.50 mm to 1.52 mm thick.

Marking: ULC label on each roll of flattened material.

CAFCO INDUSTRIES, Euboea, ON M9W 6W2

Spray-applied fire-resistive material designated "CAFCO BLAZE-SHIELD Type D-C/F".

Sprayed-applied fire-resistive material designated "CAFCO HEAT-SHIELD" spray applied with "Type 2" adhesive in the ratio of 1 part fibre to 0.75 parts adhesive by mass. Adhesive to be premixed with water in the ratio of 1:6 by volume.

Marking: ULC label on each bag of material and on each container of adhesive.

CANADIAN GYPSUM COMPANY, A Division of CGC Inc., Toronto, ON M5W 1K8

Mineral and fibre boards designated Durock!IG1 tile backer board, nominally 1200 mm long by 900 mm wide by 12.7 mm thick.

Marking: ULC label on each piece or package.

DURABOND PRODUCTS LIMITED, Scarborough, ON M1R 3B4

Base coat designated "Uniplast".

Marking: ULC label on each container or bag.

FIBREX INSULATIONS INC., Sarnia, ON N7T 7L4

Mineral and fibre boards designated as "Fibrex Industrial Board - 1200 Series", "Fibrex Curtain Wall (CW) Insulation", "Fibrex Sound Attenuation Fire Batt (SAFB)", "Fibrex Safing Insulation (Fire Stop)", "Fibrex Industrial Flex Batt - FBX 1200 Series", "Fibrex Metal Mesh Blanket - FBX 1200 Series", "Fibrex MB (Marine Board) FBX 6 and 8", "Fibrex MF (Marine Flex) FBX 6 and 8", and "Fibrex F110C - Marine".

Mineral fibre pipe insulation designated as "Coreplus 1200".

Marking: ULC label on each board.

FLEKTEC INTERNATIONAL LTD., North York, ON M9M 2Y6

Acrylic coating designated "Roll-On".

Marking: ULC label on each container.

HERAKLITH AG Furnitz, Austria

Unfaced mineral-fibre boards and batts and blankets, designated Heralan.

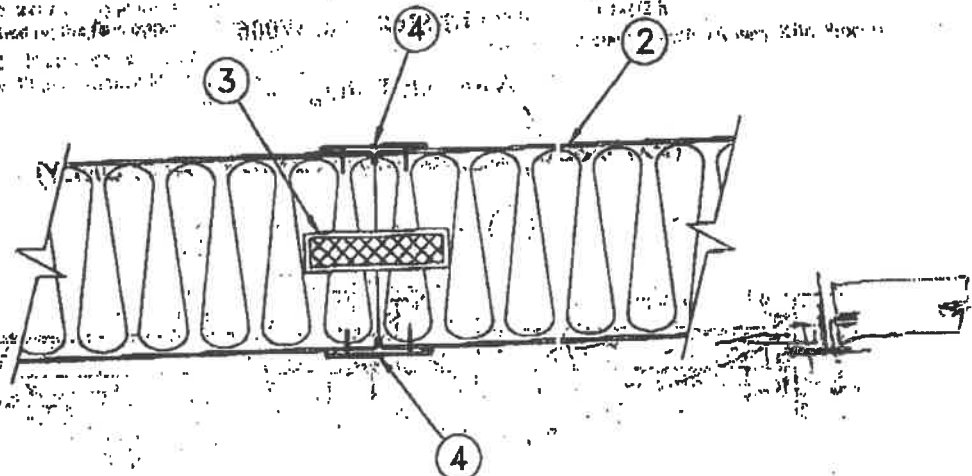
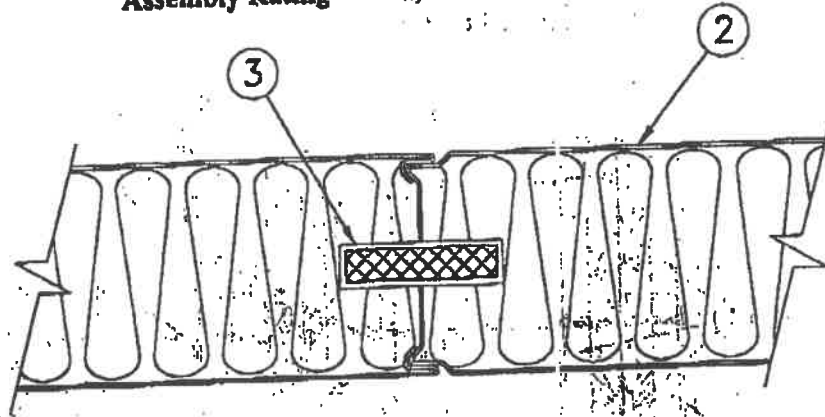
Marking: ULC label on each bundle.

ISOLATEK INTERNATIONAL, Stanhope, NJ 07874

Spray-applied fire-resistive material designated "CAFCO BLAZE-SHIELD Type D-C/F".

DESIGN No. W007

Assembly Rating - 1, 2 and 3 h (See Item 2)



Non-bearing Wall

1. Floor, Ceiling and Side Runners (not shown) - Angle-shaped, fabricated from 0.52 mm thick cold rolled steel, with 38 mm by 50 mm legs. The 38 mm legs attached to masonry by angles about the periphery anchored to masonry at 610 mm OC. The 50 mm legs attached to partition panels with 19 mm long Type S screws spaced 305 mm OC.
2. Partition Panel Units - (Guide No. 40 U18.16). Metal-faced panels nominal 102, 127 or 152 mm thick by 1220 mm wide. Panels supplied with either nested joint or butt joint. Both supplied with grooves 12 mm wide by 35 mm deep cut along vertical edges. Adjacent units are friction fitted together along vertical edges. Assembly rating of 1, 2 or 3 h is applicable to walls constructed with panels of nominal thickness of 102, 127 or 152 mm respectively.
ROXUL INC.
3. Splines - Nominal 12 mm thick by 70 mm wide calcium silicate splines inserted in vertical grooves between adjacent units along the entire length.
4. Cover Profile - Cover profile used only in conjunction with butt joint, T-shaped, nominal 16 mm deep by 51 mm wide, fabricated of 0.52 mm thick cold-rolled steel. Used at each vertical butt joint and attached to panels with 16 mm long Type S screws at 305 mm OC.
5. Caulking Compound (not shown) - 6 mm wide bead of silicone sealant placed on vertical cover profile edges, nested vertical joint, and around periphery support angle edges.

FIBREX®

FBX INDUSTRIAL BOARD INSULATIONS



The light weight of Industrial Board makes it easy to install. It fabricates easily and cleanly with minimal cleanup.

SPECIFICATION COMPLIANCE

Manufactured, tested and certified in compliance with all the standards and specifications listed below. Data and evidence available upon request.

- | | | |
|---------------------------|--------------|-----------|
| ASTM C 812, Type I - IV B | ASTM C 795 | ASTM E 84 |
| ASTM E 136 | UL 723 | CAN4-S102 |
| NRC 1.36 | USCG 164,009 | HH-I-558B |
| CAN/CGSB - 51-10-92 | CAN4-S114M | |

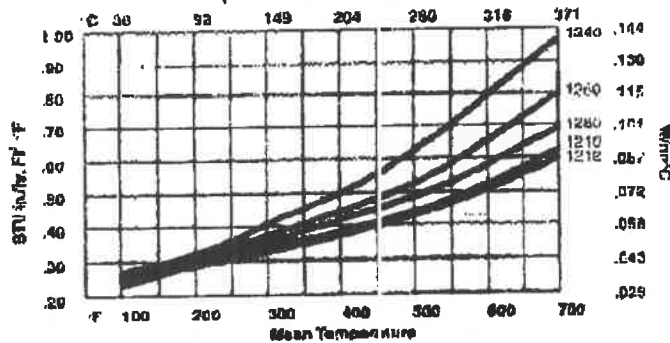
RECOMMENDED THICKNESS

Fibrex can provide a confidential computer analysis of every insulation requirement based on calculations performed to the method described in ASTM C 680.

NOTE: Advance notification must be provided if lot testing is required.

THERMAL PERFORMANCE

(ASTM C 177 test method):



ACOUSTICAL PROPERTIES

Tested per ASTM C423 & 795



TYPE	TH. (in)	ABSORPTION COEFFICIENT @ Hz				NRC
		125	1000	2000	4000	
FBX 1280	1.5	0.13	1.08	1.04	1.07	0.96
	2	0.32	1.07	1.01	1.06	1.00
	3	0.78	0.99	1.01	1.00	0.97
	4	1.11	1.03	1.06	1.07	1.00
FBX 1260	1.5	0.18	1.08	1.03	1.07	0.95
	2	0.25	1.10	1.04	1.06	1.05
	3	0.80	0.99	0.99	0.96	1.05
	4	0.99	1.03	1.03	1.05	1.06
FBX 1240	1.5	0.13	1.08	1.02	1.01	0.90
	2	0.20	1.09	1.04	1.07	0.95
	3	0.49	1.09	1.06	1.04	1.06
	4	0.68	1.08	1.06	1.10	1.10
	6	1.32	1.09	1.06	1.07	1.10

Fibrex Insulations, Inc.
PO Box 2079
561 Scott Rd.
Sarnia, Ontario
CANADA N7T 7L4



Customer Service: 1-800-265-7514
Fax: 1-800-363-4440
Phone: 519-398-7770
Technical Assistance: 1-800-585-8867
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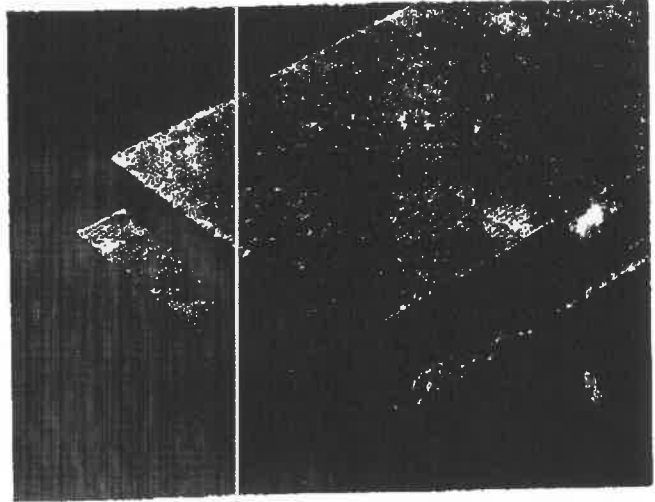
FIBREX[®]

FBX INDUSTRIAL BOARD INSULATIONS

1240 1260 1280 1210 1212

Basalt insulation in rigid and semi-rigid board form manufactured to ASTM C 612 Types I through IVB. Industrial Board provides superior thermal, acoustical and personnel protection performance for boilers, precipitators, ducts and mechanical equipment operating at temperatures from subambient to 1,200°F (649°C).

Fibrex mineral insulation products are manufactured using state of the art patented technology to produce industrial use boards with superior handleability. The material is clean, easily fabricated and quickly installed.



FEATURES

- Superior thermal conductivity
- Wide range of service temperatures
- Low in-service shrinkage; 0% @ 1,050°F (551°C)
- Lightweight
- Applicator friendly
- Good compressive strength
- Non-wicking
- Easy to fabricate
- Less dusty

BENEFITS

- Maximum prevention of heat loss
- Continuous service, subambient to 1,200°F (649°C)
- Less potential for gaps forming at joints from elevated operating temperatures
- Saves installation time and cost
- Less irritating
- Less jacket damage
- Allows temporary outdoor storage at jobsite
- Cuts easily with a knife; no sawing required
- Cleaner to handle; minimizes cleanup time and expense

GENERAL INFORMATION

Standard sizes:

lengths

widths

Standard thicknesses:

Facings:

Service temperatures:

Linear shrinkage:

Recovery after 10% compression:

Moisture adsorption:

Asbestos:

Corrosion:

Combustibility:

Chemistry:

Surface burning characteristics:

(Unfaced)

48" (1,219mm)

24" (610mm)

1" to 5" in 1/2" increments (25mm to 127mm in 13mm increments)

FSK available on request

Continuous use to 1,200°F (649°C); phased heatup not required

0% @ 1,050°F (556°C); <1% @ 1,200°F (649°C)

100%

<1%; inorganic, will not mildew

None

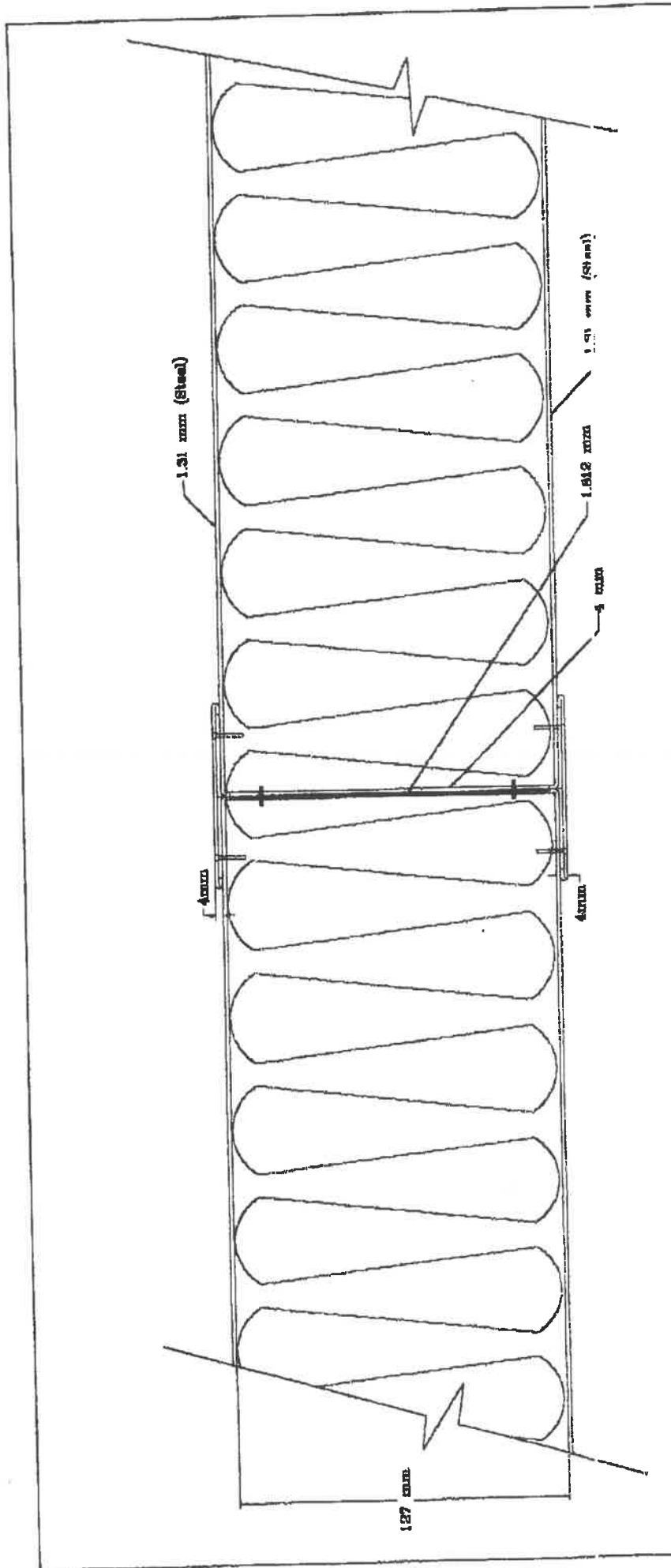
Does not promote or contribute to

Non-combustible

Mean chemistry data available on request

Flame spread 5

Smoke developed 0



Mixing Room Wall

SUPREME AIR SYSTEMS LTD.

8880-D Orden Drive

Markham, Ontario, L3T 1T7

TEL. (905) 946-8888. FAX (905) 946-8888

Designed by: J. J. J. J.

Drawn by: J. E. J. J.

Checked by: J. E. J. J.

Date: 11/11/02

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Rev: 0

Scale: 1/1