

Product Description:

DUREX INSULITE NC is an exterior insulation and finish system. The system consists of rigid mineral wool insulation, insulation adhesive and mechanical fasteners, glass fibre reinforcing mesh, base coats, and a finish texture coat which can be selected from any one of the available **Durex Architectural Coatings**.

As an added feature the **DUREX INSULITE NC** system can be used with a membrane air barrier as an integral part of the system.

Uses:

DUREX INSULITE NC is suitable for use over a wide range of structurally sound substrates. It is also an excellent system for retrofit work.

Advantages:

- ULC rated cladding system
- non-combustible insulation
- light-weight
- versatile
- flexible

LIMITATIONS:

DUREX INSULITE NC is not recommended for use over moisture sensitive substrates such as gypsum board, nor in areas where temperatures are expected to exceed 80°C, nor for below grade applications.

Application:

Prepare and mix primer, base coats, and finish coats in strict accordance with Durabond's printed instructions.

Apply all system materials in strict accordance with Durabond's printed instructions. Make all provisions for all expansion/control joints required in the system.

If a membrane air barrier would be part of the **DUREX INSULITE NC** system install the membrane to membrane manufacturer's printed instructions.

Install the insulation over the substrate with a full bed of compatible insulation adhesive. In addition to the adhesive, mechanically fasten the insulation boards, together with the layer of base coats and reinforcing

TECHNICAL DATA

SYSTEM COMPONENTS

STANDARD/METHOD

RESULTS

INSULATION:

- Fibrex - FBX 1210 CR mineral fibre

ASTM C-612
CAN/ULC S102M (E84) - flame spread 5
- smoke developed 0

CAN/ULC S114 (E136) - non-combustibility Non-combustible

ASTM C553 - moisture absorption Less than 0.1%

ASTM C518 - thermal resistance

RSI 0.76 / inch (R value 4.35 / inch)

AIR BARRIER:

- Durex Flexcrete

ASTM E283-91 - air leakage

1.5mm thick 0.0204 L/s.m² @ 75 Pa
3.0mm thick 0.0019 L/s.m² @ 75 Pa
Rated class 3 air barrier

INSULATION ADHESIVE:

- Durex Mastic 100
- Durex Flexcrete

ASTM D-897 - bond strength

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Plywood - 35 psi

Concrete - 185 psi

Cement board - 125 psi

TECHNICAL DATA (cont'd.)

LAMINA:

• Reinforcement fiberglass mesh	ASTM D-579 - construction	23.6	23.6	33	/10cm	
	ASTM D-579 - weight	152	370	509	g/m ²	
	ASTM D-579 - thickness	0.406	0.787	1.13	mm	
	ASTM D-1682 - tensile strength	825	1610	3115	N/2.54 cm	
	ASTM D-568 - flame retardant	yes	yes	yes		
	EIMA 101.91 - alkali resistance	yes	yes	yes		
	• Durex Uniplast/Acrybond "S" Lamina	EIMA 101.86 - impact resistance	Std. mesh (one layer): 145 in. lbs. High impact mesh: 160 in. lbs. Two layers mesh: 272 in. lbs.			
		CAN/ULC S114-89 - Non-combustibility	Rated non-combustible ULC Guide No. 40 U18.14.14			
		ASTM E96-95 Water vapour transmission	221.8 ng/Pa·s·m ²			
		48 hrs. immersion - water absorption	5.8%			

FINISHES:

• Durex Architectural Coatings (see also Group F)	CGSB 1GP-162M	Meets all requirements
	ASTM D822-91 - accelerated weathering	Specimen did not blister, check, crack, chalk or change colour
	CAN/ULC S102-M83 - flame spread - smoke developed - fuel contributed	8 Less than 5 Less than 5

TEST

TEST	STANDARD/METHOD	RESULTS						
Fire Protection:	CAN/ULC S101-89	Rated as non-combustible cladding and non-combustible wall assembly*						
Fire Rating:	CAN/ULC S101-89	Fire rated 1 hr. from exterior, 1-1/2 hrs. from interior ULC design W442*						
Air Leakage:	ASTM E283-91 - infiltration - exfiltration	0.099 L/s·m ² - airflow rate @ 75 Pa - 0.445 L/s 0.100 L/s·m ² - airflow rate @ 75 Pa - 0.445 L/s						
Wind Load Resistance:	ASTM E330-90 - sustained	-2.5 kPa for 60 min. – no visible damage to any of the wall components						
	ASTM E330-90 - cyclic	600 cycles alt. 0 to -2.5 kPa – no visible damage to any of the wall components						
	ASTM E330-90 - blow-out	-3.75 kPa applied for 10 sec. – no visible damage to any of the wall components – maximum pressure 7.12 kPa						
Water tightness:	ASTM E331-86	1000 Pa pressure difference for 15 min. – no water penetration through the exterior lamina was observed						
Cavity pressure equalization:	CAN-BEST Procedure	Dynamic wind pressure of +300 Pa and -300 Pa @ 0.5 Hz						
		<table border="0"> <tr> <td>Location</td> <td>Time Lag</td> </tr> <tr> <td>Mid Height</td> <td>0.38 sec.</td> </tr> <tr> <td>Full Height</td> <td>0.45 sec.</td> </tr> </table>	Location	Time Lag	Mid Height	0.38 sec.	Full Height	0.45 sec.
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Mid Height	0.38 sec.							
Full Height	0.45 sec.							

Building Code Conformance:

Classification: Durex Insulite NC wall system major components are individually rated non-combustible, meeting requirements of CAN/ULC S114-(E136), and further Durex Insulite NC meets NBC (National Building Code) and OBC (Ontario Building Code) requirements for non-combustible Construction of "Exterior Building Face" for use in buildings required to be of non-combustible construction of any building height, as per section 3.2.3.7.1(a).

Option Air or Air/Vapour Barrier: Durex Insulite NC can be installed incorporating a "peel and stick" air/vapour barrier or incorporating Durex Flexcrete as a class 3 air barrier within the assembly. However, should an air/vapour barrier already be present in your wall system check with Durabond for recommendations on appropriate wall design for your project.

* Refer to ULC design No. W442 & EW17 - Wall assembly is deemed recognized to be equal to the tested assembly: provided components forming part of the tested assembly are replaced with a similar component recognized by the testing authority to be of equal or greater quality & characteristics as the original tested product.

mesh. Over the cured base coat apply a second layer of base coat, then the primer and then the finish texture coat.

Caulk all expansion/control joints in the

DUREX INSULITE NC system.

Refer to the Durex Architectural Manual for further information.

DURabond

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