Durex® Quantum Select

Advanced-Drained Moisture-Managed Exterior Insulation and Finish System (Chemically Adhered)

Description

Durex® Quantum Select is an exterior insulation and finish system consisting of expanded polystyrene insulation with factory-cut channels, insulation adhesive, glass fibre reinforcing mesh, non-combustible base coats, and a finish texture coat which can be selected from any one of the available Durex Architectural Coatings. Durex® Quantum Select system is ULC rated as non-combustible cladding, meeting building code requirements for non-combustible construction.

Uses

Durex® Quantum Select is suitable for use over a wide range of structurally sound substrates and is recommended for use in buildings which require moisture-managed cladding.

Features

- CAN/ULC S716 compliant
- CCMC listed (13103-R)
- Continuous venting at floor lines and horizontal terminations, using pre-manufactured vented boards
- Positive drainage (through a network of vertical and horizontal channels)
- Continuous water resistive barrier
- Simple interfacing with other pressure equalized claddings
- 2-hour fire rating in accordance with ULC W456
- Economical
- Aesthetic design flexibility
- **GDDC Factor 47% (Geometrically Defined Drainage Cavity)**
- **CI factor 0.65 RSI (R 3.9) per inch (Continuous Insulation)**
- **CI factor 0.70 RSI (R 4.0) per inch Type II EPS (Continuous Insulation)**

TECHNICAL DATA

SYSTEM COMPONENT	STANDARD/METHOD	RESULTS		
INSULATION:		***Thermal Resistance***	***GDDC Factor***	
Durex Quantum Select Type I	CAN/ULC S701	0.65 RSI (R 3.9) per inch	47%	
Durex Quantum Select Type II		0.70 RSI (R 4.0) per inch	47%	
WATER RESISTIVE BARRIER:				
Air / Vapour Barriers	ASTM E96 – Water Vapour Transmission	***Method A***	***Method B***	
Durex Green Guard		11 ng/Pa.s.m²	48 ng/Pa.s.m²	
Durex Ectoflex		18 ng/Pa.s.m²	91 ng/Pa.s.m²	
Air Barriers	*(Refer to product specific Technical Data Sheet for more detailed data)*			
Durex Flexcrete		400 ng/Pa.s.m²	972 ng/Pa.s.m²	
Durex AirStop		185 ng/Pa.s.m²	505 ng/Pa.s.m²	
Durex Dur-A-Mastic 100		248 ng/Pa.s.m²	645 ng/Pa.s.m²	
Durex Blue Shield		107 ng/Pa.s.m²	268 ng/Pa.s.m²	
INSULATION ADHESIVE:				
Durex Flexcrete	ASTM D1623 Adhesion Properties	1.12 MPa (162 psi)		
Durex Monobase	*(Refer to product specific Technical Data Sheet for more detailed data)*	1.38 MPa (200 psi)		
Durex VCA 3.0		1.02 MPa (148 psi)		
LAMINA:		**Retention Physical**	**Retention Performance**	
Impant Resistance	ASTM E2486 – Impact Resistance			
Durex Fiberglass Mesh		Standard 3 N.m	10 N.m	PASS
(Note: Impact resistance level is directly related to the weight and layers of Fiberglass mesh used in the lamina)	*(Refer to Table 1.5.9 of the Quantum Select Specifications for detailed selection chart for guidance on level of impact resistance required)*	Intermediate 8 N.m	15 N.m	PASS
		High 13 N.m	20 N.m	PASS
		Ultra High 20 N.m	30 N.m	PASS
		Extreme 25 N.m	40 N.m	PASS
Base Coat				
Durex Uniplast/Acrybond "S"	CAN/ULC S114 Noncombustibility	Rated Noncombustible		
Durex Monobase		Rated Noncombustible		
FINISHES:				
Durex Architectural Coatings	CAN/ULC S716.1 &	Durex Architectural Coatings		
Classic Series	CCMC Report # 13103-R	Meet and exceed all requirements		
Premium Series				
Artisan Series	*(Refer to product specific Technical Data Sheet and CCMC Evaluation Report # 13103-R for more detailed data)*			
Kolor Gard Series				
Elastomeric (FX) Series				

PERFORMANCE:	*(Refer CCMC Evaluation Report # 13103-R for complete detailed performance data)*	
Fire Protection	CAN/ULC S101 & CAN/ULC S114 *(Compliance to NBC 3.2.3.8(1) (b))* CAN/ULC S101 *(Fire Resistance rated Assemblies)* CAN/ULC S134 *(Compliance to NBC 3.1.5.5)*	Rated as non-combustible cladding ULC design EW21/ EW22/EW23 1 hr. FR rating ULC design W489 (Load Bearing) 2 hrs. FR rating ULC design W485 (Load Bearing) 2 hrs. FR rating ULC design W456 (Non-Load Bearing) Intertek listing # DPL-WEIFS 30-01
Wind Load Resistance	ASTM E330 – sustained ASTM E330 – cyclic ASTM E330 – blow-out	-2.5 kPa for 60min. – no visible damage to any of the wall components 600 cycles alt. 0 to -2.5kPa – no visible damage to any of the wall components -3.75kPa applied for 10 sec. – no visible damage to any of the wall components - max. pressure 7.12 kPa
Water Tightness	ASTM E331	400 Pa pressure difference for 15 min. – no water penetration through the exterior surface finish
System Compliance	CCMC Technical Guide for EIFS CAN/ULC S716.1 EIFS Materials & System	CCMC Evaluation Report # 13103-R Durex Quantum Select is fully compliant with: CAN/ULC S716.1 Materials & System CAN/ULC S716.2 Installation of Components & WRB CAN/ULC S716.3 Design Application

Building Code Conformance:

Durex® Quantum Select complies with the following building code requirements (refer to applicable building code)

Classification	Category 1 CAN/ULC S114 & CAN/ULC S101 CAN/ULC S134	 Non-Combustible Lamina Fire Test of Exterior Wall Assemblies
Part 3	Article 3.1.5.5 Article 3.1.5.2 Clause 3.2.3.7(2) & Table 3.2.3.7	Combustible Cladding on Exterior Walls Allowable Minor Combustible Components >10% Unprotected Openings
Part 5	Section 5.6.1 Sub-Section 5.6.2.1 Section 5.9.4	Protection from Precipitation Sealing and Drainage Exterior Insulation Finish Systems
Part 9	Clause 9.25.2.2(1)(d) Sub-Section 9.25.5.2 Clause 9.27.1.1(5) Section 9.27.2 Article 9.27.3.1 Sub-Section 9.27.13	Insulation Materials CAN/ULC S701 Position of Low Permeance Membranes General (Cladding, Application) Required Protection from Precipitation Elements of Second Plane of Protection Exterior Insulation Finish Systems

Application

Apply all Durex System Products and components, (WRB, insulation, adhesive, base coat, reinforcing mesh, finish coat, sealants) in strict accordance with Durabond's printed instructions. See Durabond's Standard Specifications/Details and Durex Product Data Sheets.

Clean-up

Clean all tools promptly after use with clean water. Do not allow mixes to dry on tools.

Storage

Store all Durex® Products and components in a dry vented, waterproof location, stacked off the ground with ambient temperatures above 5°C (41°F). Keep materials dry, protected from dampness and moisture and away from direct sunlight. KEEP FROM FREEZING.

Health and Safety

For information and advice on the safe handling, storage and disposal of chemical products, refer to the most recent SDS sheet containing physical, environmental, toxic and other safety/materials handling data. For industrial use only. Keep out of reach of children.

Warranty

Durabond Products Limited fully warrants their products when used and applied in strict accordance with the printed instructions on product mixing and product application. In any case Durabond's responsibility shall not exceed either the refund of the purchase price or the replacement of the purchased product.

Technical Services

Technical support is available upon request at info@durabond.com. For the latest version of this data sheet, please visit our website at www.durabond.com, call toll free at 1-877-DURABOND (387-2266) or speak with your Durabond Technical Coatings Ltd. sales representative.