Protect. Enhance. Outperform.

Durex® EIFS Impact Lamina Systems

Impact Performance by Design

FOR DUREX® EIFS SYSTEMS

ECO

URBAN HOSPITALITY

- Additional protection from airborne debris in an urban environment
- Better thermal efficiency when compared to traditional masonry
- Complete design and aesthetic control for truly unique facades

Durex® Impact Lamina

Impact Resistant Systems

What is Impact Lamina?

Durex® Impact Lamina is the process of applying specific reinforcing mesh layers with Durex® Basecoats to achieve a technically superior lamina that can withstand varying levels of impact. Impact Resistance levels can range from small urban debris to hurricane category winds, depending on project requirements.

Applications of Impact Lamina

- Cottages and homes in forested areas subject to damage from wildlife i.e. woodpeckers
- Buildings in dense urban areas at risk of airborne debris like gravel or garbage, and traffic collisions
- Buildings exposed to frequent adverse weather like hail and high winds
- Structures that require an economical yet effective solution for exterior durability and longevity

Benefits of Impact Lamina

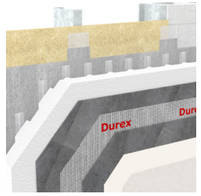
- Economical when compared to traditional masonry
- Compatible with all Durabond Building Systems
- Extremely durable
- Shock and impact resistant
- Excellent freeze - thaw stability
- Easy to install and integrate onto existing buildings

Performance by Design

FOR DUREX® EIFS SYSTEMS

Resistance Levels

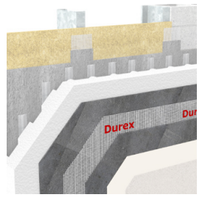
Protect. Enhance. Outperform.



INCLUDED:

DUREX® STANDARD IMPACT

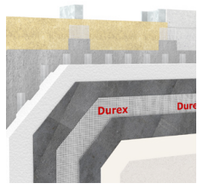
Standard EIFS system



LEVEL 1:

DUREX® STANDARD PLUS IMPACT

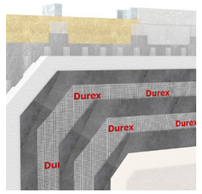
Standard EIFS 6oz lamina system



LEVEL 2:

DUREX® MEDIUM IMPACT

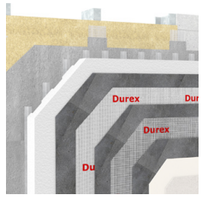
Enhanced standard EIFS system with additional durability



LEVEL 3:

DUREX® HIGH IMPACT

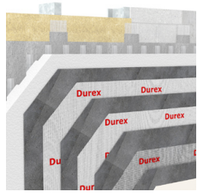
Durable impact system featuring 2 layers of fiberglass mesh



LEVEL 4:

DUREX® ULTRA HIGH IMPACT

Featuring the highest 21oz Impact Lamina, very high protection against impacts in high winds



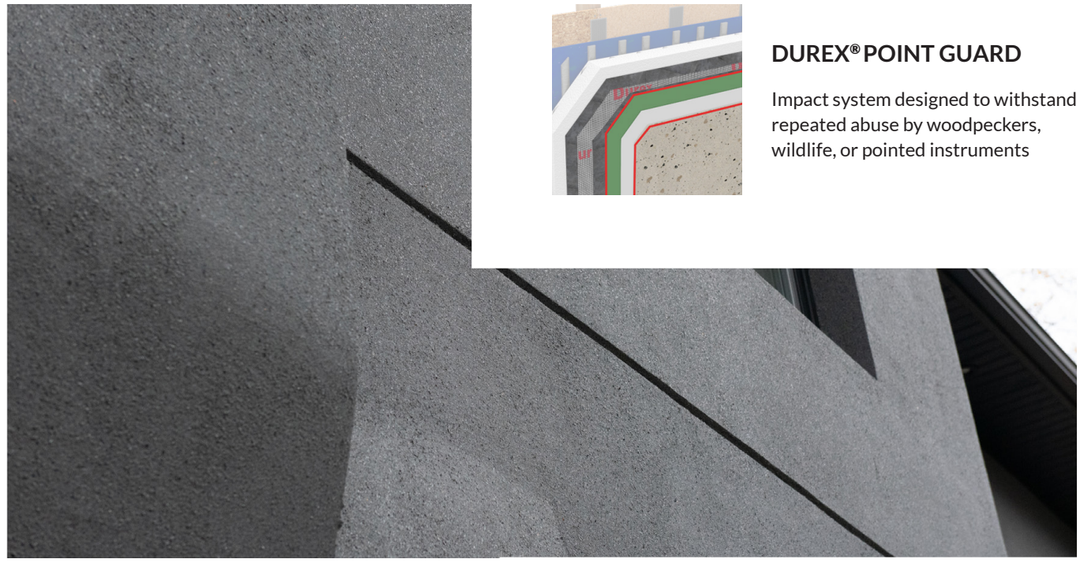
LEVEL 5:

DUREX® EXTREME IMPACT

Featuring 2 layers of impact lamina able of withstanding impacts in hurricane level environments

DUREX® POINT GUARD

Impact system designed to withstand repeated abuse by woodpeckers, wildlife, or pointed instruments



Durex® Impact Lamina

High performance protective lamina

Fortification Lamina that can be applied to any Durex® Cladding System

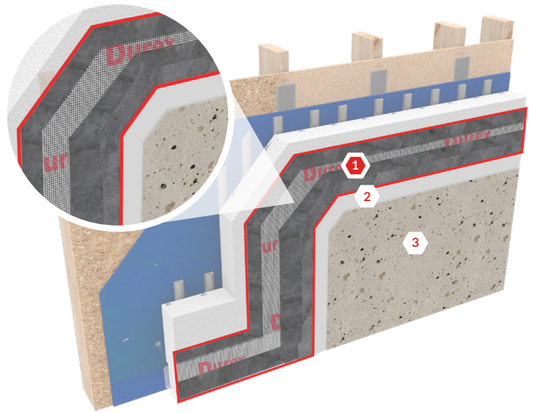
Essential for High Traffic EIFS applications, Durex® High Impact Lamina is designed as a fortification layer for both new and retrofit Durex® Insulated Cladding Systems that offers unparalleled protection against impact. Our Durex® High Impact Lamina stands strong against urban debris, hail, gravel, and even the repeated impacts of hurricane-level environments. With Durex® Impact Lamina Systems, your EIFS can withstand serious forces.

IDEAL USE

Durex® Impact Lamina is recommended for buildings that require protection from external impact forces caused by urban areas, debris, and weather. High Impact Lamina can achieve comparable durability to traditional masonry while providing additional thermal efficiency.

FEATURES

- Variable levels of impact resistance
- Can achieve comparable durability to traditional masonry
- Can be installed on both new Durex® EIF Systems and over of existing EIF Systems
- Excellent compressive and flexural strength
- Excellent freeze-thaw stability
- CAN/ULC S716 compliant
- CCMC listed (13103-R)
- Economical and easy to repair



1 Impact Lamina Layers
Durex® Impact Mesh +
- Durex® Flexcrete
- Durex® Monobase
- Durex® Uniplast + Acrybond 'S'

2 Durex® Primer / Basecoat
Durex® Basecoat

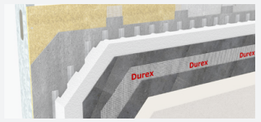
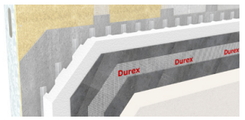
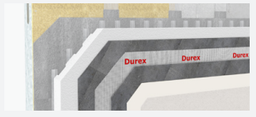
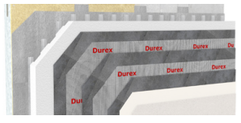
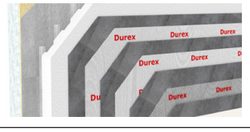
3 Durex® Finish Coat
Durex® Architectural Finish Coating

Performance by Design

Achieve durability and resistance comparable to traditional masonry with High Impact Lamina

Ask your Durabond Representative for more information specifically tailored to your project

Impact Resistance Chart

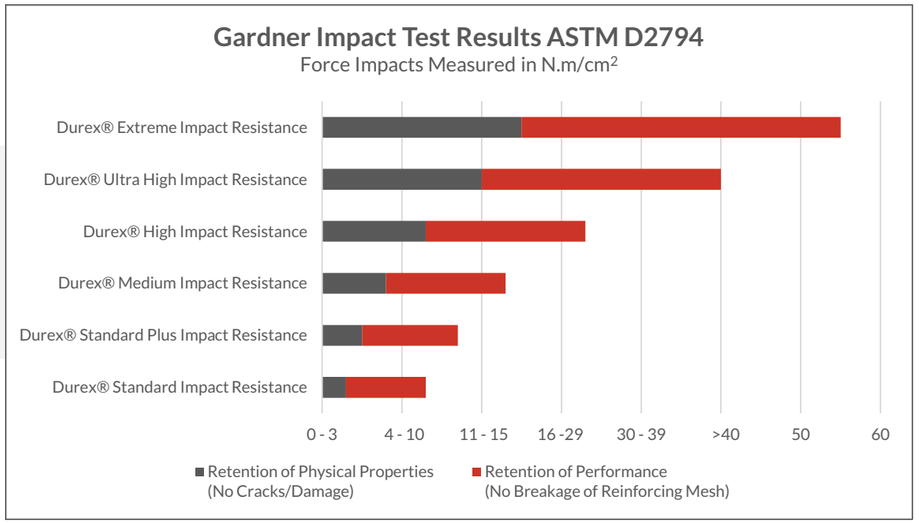
Impact Test Method		Protective Lamina Reinforcement Components
Impact Resistance Level		
Level Description	Systems Isometric	Note: the respective indicated layers of fiberglass mesh are to be individually embedded in separate layers of base coat. Each base coat layer to be an average of 3mm think. The respective fiberglass reinforcement can be used in combination with Durex Flexcrete, Monobase, or Uniplast.
Durex® Standard Impact Resistance		Layer 1: Standard Mesh (4.3oz)
Durex® Standard Plus Impact Resistance		Layer 1: Standard Plus Mesh (6oz)
Durex® Medium Impact Resistance		Layer 1: Intermediate Mesh (11oz)
Durex® High Impact Resistance		Layer 1: Standard Mesh (4.3oz) Layer 2: Standard Mesh (4.3oz)
Durex® Ultra High Impact Resistance		Layer 1: High Impact Mesh (15 oz) Layer 2: Standard Mesh (4.3oz)
Durex® Extreme Impact Resistance		Layer 1: High Impact Mesh (15 oz) Layer 2: High Impact Mesh (15 oz) Layer 3: Standard Mesh (4.3oz)
The objective of the above impact test pass/fail criteria is to provide a comparative resistance to damage caused to claddings by impact forces resulted from concentrated impact loads that may occur in everyday in-service operational activities in proximity to a building.		1. Each layer of reinforcing mesh shall be fully embedded in the base coat and allowed to individually cure. 2. "Standard" is the minimum mesh grade that could be used in conjunction with EPS-based EIFS. 3. Refer to section 2.7 of this specification for reinforcing details. 4. Other combinations of reinforcing mesh layers may be utilized to achieve the desired impact Resistance Level based on confirmed tested performance by accredited laboratory.

Practical Description of Impact Load		ASTM E2486 Gardner Impact Tester ASTM D2794	
Impact Limit of Physical Properties (No Cracks/Damage)	**Break Limit (No Breakage of Reinforcing Mesh)**	**Retention of Physical Properties (No Cracks/Damage)**	**Retention of Performance (No Breakage of Reinforcing Mesh)**
Note: the respective indicated impact action on the cladding are and approximation to the actual energy level used in the test as a minimum requirement for pass/fail criteria.		Impact Energy Levels	
		N.m (Joules) / (in. lbs)	N.m (Joules) / (in. lbs)
3 Joules of Force or Single, Light Strike with 12 oz Hammer	10 Joules of Force or Single, Heavy Strike with 12 oz Hammer	3	10
5 Joules of Force or Single, Light Strike with 16 oz Hammer	12 Joules of Force or Single, Heavy Strike with 16 oz Hammer	5	12
10 Joules of Force or Single, Light Strike with 22 oz Hammer	15 Joules of Force or Single, Heavy Strike with 22 oz Hammer	8	15
13 Joules of Force or Single, Light Strike with 8 lb Sledge Hammer	20 Joules of Force or 3 Repeated, Heavy Strikes with 8 lb Sledge Hammer	13	20
20 Joules of Force or Single, Medium Strike with 8 lb Sledge Hammer	30 Joules of Force or 5 Repeated, Heavy Strikes with 8 lb Sledge Hammer	20	30
25 Joules of Force or Single, Heavy Strike with 8 lb Sledge Hammer	40 Joules of Force or 10 Repeated, Heavy Strikes with 8 lb Sledge Hammer	25	40
Remarks and Considertions on Test Method ASTM E2486 - represents the highest impact force per area of impact when compared to other test methods (impactor 12.5 mm dia.). Test method allowed for comparative results of resistance to puncture due to impact on cladding materials.			

Impact Resistance Test Method

Tested by standard ASTM E2486

TEST METHOD: 1 - 2 Kgs Weight drop on 13 mm diameter impactor. Corresponding to small objects impacting into façade acting on a concentrated small area impacting at a high rate of speed.



Comparable Impact Resistance Chart

Impact Range N.m/cm²	1 - 3	4 - 10	11 - 15	16 - 29	30 - 39	> 40
Example of Impacts	1" Stone @ 30 kph (2) Small Hail (2-5mm) (2)	Hail Med. (5-15mm) (5) Hail Large (20mm) (8)	2" Stone @ 30 kph (8) Hockey Puck @ 40kph (15)	Snowblower @ 3 kph Small Forklift @ 1 kph (29)	Lawnmower @5 kph (34) 5 Heavy Strikes with 8 lb Sledge Hammer (30)	2x4 14ft Long - 9lbs @ 55 kph (46) 10 Heavy Strikes from 8 lb Sledge Hammer (40)
Durex® Impact System	Standard Impact Resistance	Standard Plus Impact Resistance	Medium Impact Resistance	High Impact Resistance	Ultra High Impact Resistance	Extreme Impact Resistance

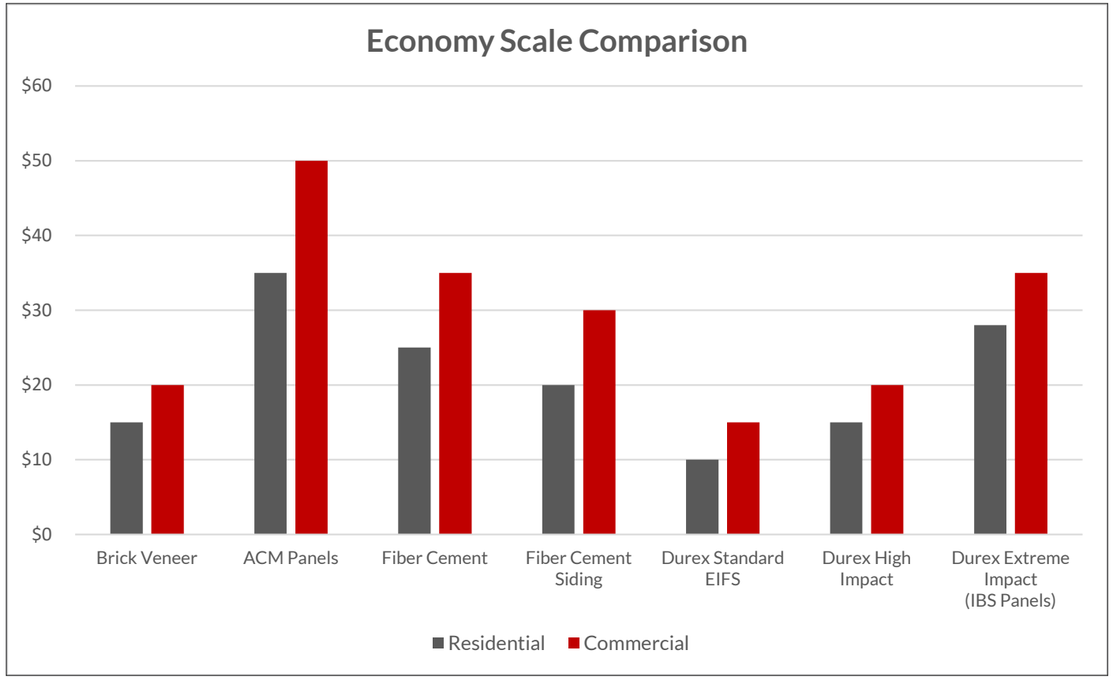
The objective of the above impact test pass/fail criteria is to provide a comparative resistance to damage caused to claddings by impact forces resulted from concentrated impact loads that may occur in everyday in-service operational activities in proximity to a building.

Remarks and Considerations on Test Method

ASTM E2486 - represents the highest impact force per area of impact when compared to other test methods (impactor 12.5 mm dia.). Test method allowed for comparative results of resistance to puncture due to impact on cladding materials.

Cost Value Analysis

Common cladding systems



Cladding Cost Comparison	
Brick Veneer	Typical brick veneer (not including structure)
ACM Panels	Metal panels (not including structure)
Fiber Cement	Fiber cement panels, similar to ACM panels - considered durable
Fiber Cement Siding	Fiber cement siding, not inclusive of substrate structure
Durex Standard EIFS	Base starting EIFS - code compliant cladding
Durex High Impact	Most ideal cladding system for cost/value (considering additional benefits)
Durex Extreme Impact (IBS Panels)	Factory produced, highest quality building panel system

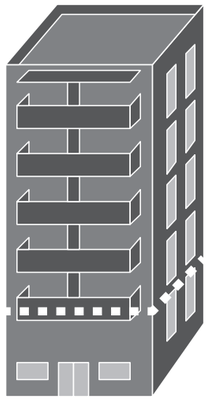
Achieve durability and resistance at a better value to other common cladding systems!

Ask your Durabond Representative for more information specifically tailored to your project

NOTE: In addition to cost factors, please consider the costs of repairs resulting from impact damage

Recommeded System by Building Type

Visual overview of Part 3 type Buildings and recommended Impact Resistance



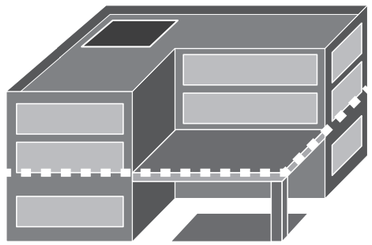
Upper Floors:
Minumum Protection: Standard Impact Lamina

Ideal Protection: High Impact Lamina

First / Lower Floor:
Minumum Protection: High Impact Lamina

Ideal Protection: Ultra High Impact Lamina

GROUP A:
High Rise / Institutional Buildings



Upper Floors:
Minumum Protection: Standard Impact Lamina

Ideal Protection: High Impact Lamina

First / Lower Floor:
Minumum Protection: High Impact Lamina

Ideal Protection: Ultra High Impact Lamina

GROUP B:
Critical Institutional Buildings

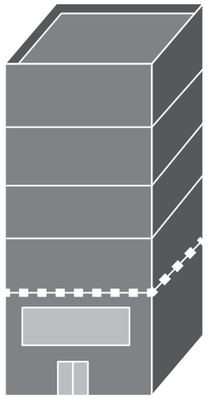
Upper Floors:
Minumum Protection: Standard Impact Lamina

Ideal Protection: High Impact Lamina

First / Lower Floor:
Minumum Protection: High Impact Lamina

Ideal Protection: Ultra High Impact Lamina

GROUP C: Residential



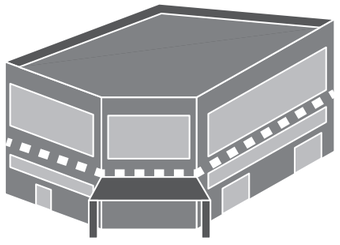
Upper Floors:
Minumum Protection: Standard Impact Lamina

Ideal Protection: High Impact Lamina

First / Lower Floor:
Minumum Protection: High Impact Lamina

Ideal Protection: Ultra High Impact Lamina

GROUP D:
Office and Business Buildings



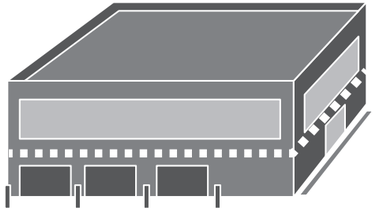
Upper Floors:
Minumum Protection: Standard Impact Lamina

Ideal Protection: High Impact Lamina

First / Lower Floor:
Minumum Protection: High Impact Lamina

Ideal Protection: Ultra High Impact Lamina

GROUP E: Commercial and Retail Buildings



Upper Floors:
Minumum Protection: Standard Impact Lamina

Ideal Protection: High Impact Lamina

First / Lower Floor:
Minumum Protection: Ultra High Impact Lamina

Ideal Protection: Extreme Impact Lamina

GROUP F: Industrial Buildings

Find your Level of Protection

Recommended impact resistance levels for Part 3 type Buildings related to the type of occupancy as defined by the NBC and OBC

NBC Part 3 Cladding Impact Resistance Level Guideline Chart
3.1.2.1. Classifications of Buildings

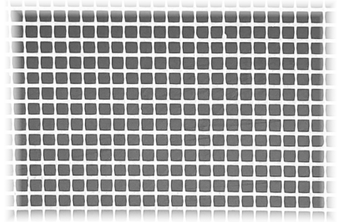
Occupancy Classification			Activity / Exposure Level			
			Ground Floor		Upper Floors	
Group	Division	Type of Occupancy	Light	Heavy	Light	Heavy
A	1	Assembly occupancies intended for the production and viewing of the performing arts	High	Ultra High	Standard	High
	2	Assembly occupancies not classified under Group A	Medium	Ultra High	Standard	High
	3	Assembly occupancies of the arena type	Extreme	Extreme	Medium	Ultra High
	4	Assembly occupancies in which attendants are gathered in open area	Extreme	Extreme	Medium	Ultra High
B	1	Detention occupancies	Extreme	Extreme	Extreme	Extreme
	2	Care and treatment occupancies	High	Ultra High	Standard	High
	3	Care occupancies	High	Ultra High	Standard	High
C	-	Residential occupancies	High	Ultra High	Standard	High
D	-	Business and personal services occupancies	Medium	Ultra High	Standard	High
E	-	Mercantile occupancies	High	Ultra High	Standard	High
F	1	High hazard industrial occupancies	Extreme	Extreme	Extreme	High
	2	Medium hazard industrial occupancies	Extreme	Ultra High	Standard	High
	3	Low hazard industrial occupancies	Medium	Ultra High	Standard	High

Durex® Fiberglass Mesh

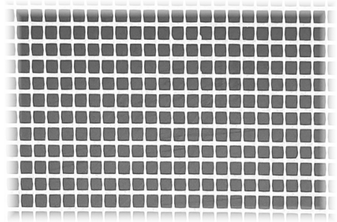
Alkaline-coated, reinforcing fabric mesh rolls

Crafted from premium alkaline-coated fiberglass fabric, this mesh is engineered to strengthen polymer-modified and polymer-based cementitious base coats. It's the essential reinforcing layer in all Durex® EIFS Systems.

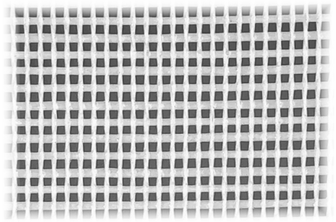
Our Mesh is meticulously woven on a loom, using tightly intertwined warp and weft yarns in a leno weave. Each fill yarn is securely trapped between twisting warp yarns, then treated with alkali-resistant macromolecule latex to ensure unmatched durability and performance. Choose Durex for top-tier reinforcement that stands the test of time!



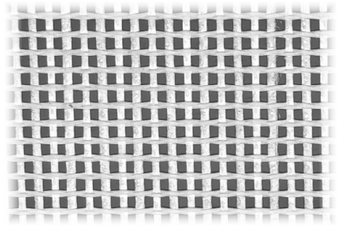
Standard Reinforcing Mesh
Fiberglass Mesh (4.3 oz)
Roll Widths: 38", 12", 9", 4" x 150 ft



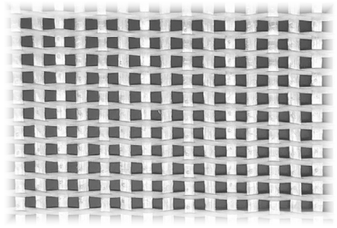
Standard Plus Reinforcing Mesh
Fiberglass Mesh (6 oz)
Roll Width: 38" x 150 ft



Intermediate Impact Mesh
Fiberglass Mesh (11 oz)
Roll Width: 38" x 150 ft



High Impact Mesh
Fiberglass Mesh (15 oz)
Roll Width: 38" x 75 ft



Ultra High Impact Mesh
Fiberglass Mesh (21 oz)
Roll Width: 38" x 75 ft

FEATURES

- Fiberglass mesh of tested quality, capable of withstanding high tension without stretching
- Glass fibers with negligible sensitivity to temperature changes within the wall
- Proper fiberglass anti-alkaline dressing to avoid quick aging of the wall reinforcement due to corrosion action of alkalis present in coating mortar
- Provides dimensional stability and enhances performance
- Prevents cracking
- Good cohesion
- Highly flexible

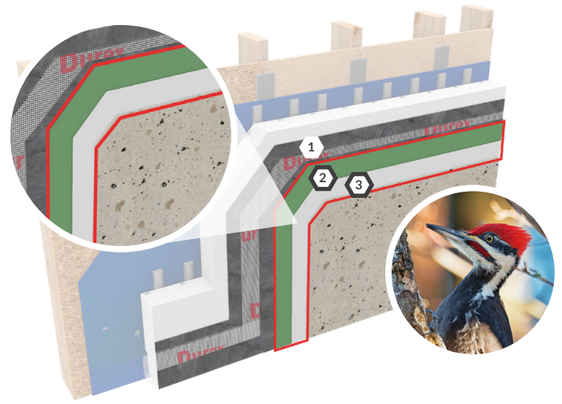
Durex® Point Guard

Woodpecker resistant impact lamina

High performance, impact resistant, protective lamina

Since Exterior Insulation and Finish Systems (EIFS) were first introduced in Canada, they've faced an unusual nemesis: woodpeckers and other birds. These feathered foes are inexplicably drawn to EIFS claddings, leaving behind a trail of damage. Despite numerous attempts, EIFS producers have struggled to find a lasting solution—until now.

Enter Durabond Products with a game-changing innovation: our High Impact Lamina. Designed as a fortification layer for both new and retrofit Durabond Cladding Systems, it offers unparalleled protection against woodpecker damage. But we didn't stop there. The High Impact Lamina also stands strong against urban debris, hail, gravel, and even the repeated impacts of hurricane-level environments. With Durabond, your EIFS is safe from nature's worst.



1 Fibreglass Reinforced Basecoat
Durex® Basecoat
- Durex® Flexcrete
- Durex® Monobase
- Durex® Uniplast + Acrybond 'S'

2 Durex® Point Guard System - 1st Basecoat Layer
Durex® Diamond Plus

3 Durex® Point Guard System - 2nd Basecoat Layer
Durex® Diamond Flex

IDEAL USE

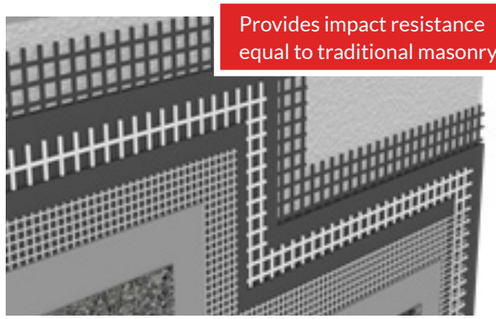
Durex® Point Guard is a specially formulated point impact resistant EIFS lamina system engineered with proprietary aggregates to protect against damage caused by woodpeckers or other similar types of wildlife as well as other types of point impact exposure.

FEATURES

- Withstands fine impact load (woodpeckers)
- Can be installed on both new Durex® EIF Systems and over of existing EIF Systems
- Excellent compressive and flexural strength
- Coarse, dense material for higher strength
- Highly flexible second layer for excellent crack resistance
- Excellent freeze-thaw stability
- CAN/ULC S716 compliant
- CCMC listed (13103-R)
- Economical

Durex® Impact Lamina Cladding Solutions

Complete wall system options for Impact Lamina



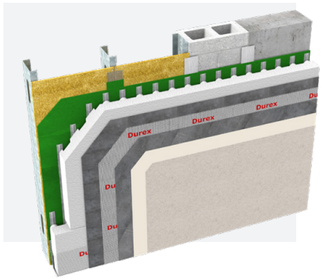
Provides impact resistance equal to traditional masonry!

Durex® Impact Lamina is compatible with all Durabond Cladding and EIF Systems to provide substantial protection against common hazards, effectively shielding your buildings from external impact forces.

SAMPLE LAMINA:

Extreme Impact Resistance

- two (2) layers of High Impact mesh, plus
- one (1) layer of Standard mesh



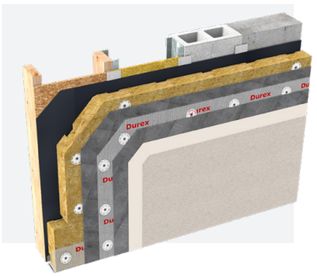
Durex® Quantum Select

FEATURES

CAN/ULC S716 compliant | CCMC listed (13103-R)

2-hour fire rating in accordance with ULC W456

Continuous Insulation – CI Factor = 0.65 RSI/in (Type1 EPS) - 0.70 RSI/in. (Type2 EPS)



Durex® Equalite Select

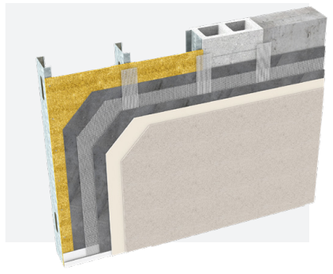
FEATURES

Completely non-combustible cladding

Pressure equalized (rain screen principle)

Continuous High Density thermal barrier

Continuous Insulation
CI Factor = 0.70 RSI/in.



Durex® Flexlite Select

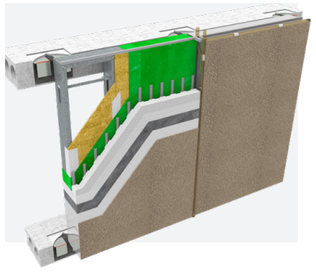
FEATURES

CAN/ULC S716 compliant

CCMC listed (13103-R)

Economical and easy to install

Positive drainage and flexible



Durex® Integrated Building Systems

FEATURES

Pre-engineered lightweight panel design

Speed of construction

Pressure moderate rain screen design

Air/Water tight building envelope design

IMPACT RESISTANT LAMINA

SEMI RURAL RESIDENTIAL

- Excellent protection from wind, debris, and wildlife
- Better thermal efficiency when compared to traditional masonry
- Compatible with all Durex® Finish Systems, offering complete design and aesthetic control

Protect. Enhance. Outperform.

DURABOND 50 YEARS 1967–2017

The recommendations and information in this chart/document are for the application of Durex® products manufactured by Durabond, and are based on practical knowledge for general site conditions and uses. This chart is to be used as a reference guide only to identify and display the various products for general, non-site specific applications for a variety of installations. Differences in site conditions, preparations, materials are continuously variable and unknown.

As such, no warranty, guarantee or legal binding relationship is implied whatsoever with these products and systems and no guarantee can be made to their performance. In addition, preparation and condition of the substrate is of such utmost importance that a Durabond Technical Representative must be notified prior to installation of any of the aforementioned products and/or systems.

An installer must always prepare the surface to the recommendations found on the current data sheet of each product written and produced by Durabond Technical Coatings Limited. These data sheets can be obtained from Durabond's website, www.durabond.com, or by contacting a Technical Sales Representative directly.

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