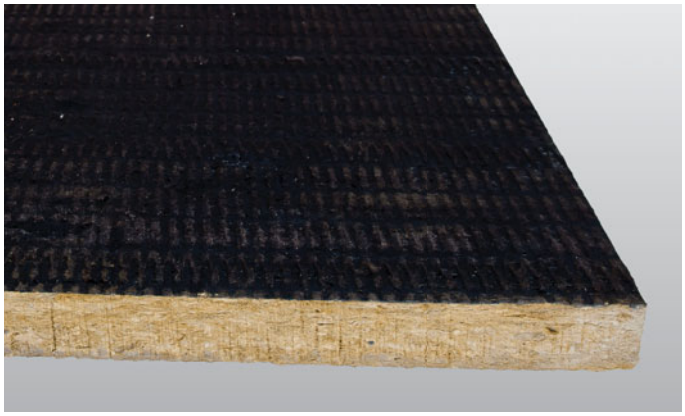
CARLISLE SYNTEC SYSTEMS

TOPROCK® DD and TOPROCK® DD Plus

Mineral Wool Insulation and Insulating Coverboard in One

TOPROCK DD



TOPROCK DD Plus

Overview

TOPROCK DD and TOPROCK DD Plus are rigid mineral wool insulation boards with rigid upper surfaces for durability and enhanced strength. They are intended for commercial and industrial roof insulation applications and are suitable for both new construction and re-roofing applications. TOPROCK DD is intended for use with ballasted or mechanically fastened single-ply membranes. TOPROCK DD Plus is impregnated with a bitumen layer for compatibility with Hot-Mopped FleeceBACK® AFX membrane.

Features and Benefits

- Long-term stable R-value
- Dimensionally stable
- Non-combustible
- High impact resistance
- Water repellent
- Sound absorbent
- Made from stone and recycled materials

Panel Characteristics

Available in 48" x 48" (1219 mm x 1219 mm) panels in thicknesses of 2" – 6" in ½" increments.

Installation

Ballasted Single-Ply Systems
Each insulation panel is loosely laid on the roof deck. Butt edges and stagger joints of adjacent panels.

Mechanically Fastened Single-Ply Systems
Each insulation panel must be secured to the roof deck with fasteners and plates appropriate to the deck type. Butt edges and stagger joints of adjacent panels. Install the roof membrane according to Carlisle's specifications. Carlisle approved coverboard is required as overlayment.

FleeceBACK Fully Adhered Single-Ply Systems
Butt edges and stagger joints of adjacent insulation panels. Insulation is to be adhered using Flexible FAST™ Adhesive with beads or full spray coverage. FleeceBACK membranes must be adhered with Carlisle's Flexible FAST Adhesive according to Carlisle specifications. Carlisle approved coverboard is required as overlayment.

FleeceBACK AFX Fully Adhered Single-Ply Systems
Butt edges and stagger joints of adjacent insulation panels. Insulation is to be adhered with a full mopping of Type III or IV asphalt. FleeceBACK AFX adhered single-ply system's must be adhered with a full mopping of Type III or IV asphalt according to Carlisle's specifications. Carlisle approved coverboard is required as overlayment.

Review Carlisle's specifications and details for complete installation information.

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Acoustical Performance

Thickness	Test Method	Co-Efficients at Frequencies						
		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
2.0"	ASTM C 423	0.50	0.71	0.85	0.90	0.96	1.01	0.85

Code Approvals

- ASTM C726
- NFPA 276-Class 1
- Underwriters Laboratories, Inc.
  - CAN/ULC-S107-03-Class A
  - CAN/ULC-S126-06-Construction C7, C18, C28, C38
  - CAN/ULC-S114-Non-Combustible
  - UL 723 (ASTM E84)
  - CAN/ULC-S102
  - UL 2218-Class 4 (Hail)
  - UL 790 (ASTM E108)
- Factory Mutual Research
  - FM 4470-Class 1, Class 1-SH (Severe Hail)
  - FM 4473-Class 4 (Hail)

Precautions

This product should not be exposed to weather during shipment, storage or installation. At the end of a work day, all exposed edges should be temporarily sealed by lapping roof membrane over them. These products are not intended for use as a structural roof deck or for use under heavy traffic areas. **In areas that receive regular foot traffic, a coverboard is recommended.**

On-Site Storage

The factory packaging is intended for the protection of the insulation boards during transit and is not intended for jobsite protection against the elements. When product is stored outdoors, the plastic shroud must be slit and the insulation protected by a waterproof, breathable covering such as a tarpaulin. Insulation must be stored a minimum of 4" (102 mm) above the ground on a solid, flat surface.

FM APPROVED

CLASSIFIED UL

ULC LISTED

MIAMI-DADE COUNTY APPROVED

Typical Properties and Characteristics

Physical Property	Test Method	Value	
Thermal Resistance	ASTM C 518 (ASTM C 177)	Temperature	R-value/inch
		25°F (-4°C)	4.3 hr.ft².F/Btu
		40°F (4°C)	4.2 hr.ft².F/Btu
		75°F (24°C)	**3.8 hr.ft².F/Btu**
		110°F (43°C)	3.6 hr.ft².F/Btu
Dimensional Stability			
Linear Shrinkage 24 hours @ 1200°F (650°C)	ASTM C356	0.71%	
Linear change 7 days @ 40°F (-40°C) ambient RH	ASTM D2126	0.1%	
Linear change 7 days @ 200°F (93°C) ambient RH		0.1%	
Linear change 7 days @ 158°F (70°C) 97% RH		0.0%	
Moisture Resistance	ASTM C1104	0.15%	
	ASTM E96	2330 ng/Pa.s.m² (41 Perm)	
	ASTM C209	<1.0 %	
Corrosive Resistance	ASTM C665	Non-corrosive	
	ASTM C795	Non-corrosive	
Compressive Strength	ASTM C165		
Top Layer			
@ 10%		20 psi (140 kPa)	
@ 25%		37 psi (250 kPa)	
Entire Board			
@ 10%		11 psi (75 kPa)	
@25%		15 psi (105 kPa)	
Point Load (EN 12430)			
@ 5mm compression		30 psi	
Density	ASTM C612-09		
Top Layer		13.75 lb/ft³ (220 kg/m³)	
Bottom Layer		10.0 lb/ft³ (160 kg/m³)	

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.