

## ROXUL TOPROCK® DD

## Flat Roof Insulation

### Product Description & Application

ROXUL TOPROCK® DD is a dual density, mineral wool insulation board for flat roofing applications

	Performance	Test Standard							
Compliance	Standard Specification for Mineral Fiber Roof Insulation Boards	ASTM C726							
	Approval Standard for Single Ply, Polymer Modified Bitumen Sheet, Built-Up Roof and Liquid Applied Roof Assemblies for use in Class 1 and Noncombustible Roof Deck Construction	FM 4470							
	NCC (Non Combustible Core) Rated Roof Insulation	FM 4470							
Reaction to Fire	Flame spread index = 0 ; Smoke developed index = 0	ASTM E84 (UL 723)							
	Flame spread index = 0 ; Smoke developed index = 0	CAN/ULC S102							
	Determination of Non Combustibility of Building Materials - Non Combustible	CAN/ULC S114							
	Standard Method of Fire Tests for Determining Heat Release Rate of Roofing Assemblies with Combustible Above Deck Roofing Components - Class 1	NFPA 276							
	Fire Tests of Roof Coverings - Class A	CAN/ULC S107-03							
	Fire Spread under Roof Deck Assemblies - See ULC Directory	CAN/ULC S126-06							
	Standard Test Methods for Fire Tests of Roof Coverings - Class A	UL 790 (ASTM E108)							
	Fire Tests of Building Construction and Materials - See UL Directory	UL 263 (ASTM E119)							
Density	Top Layer - 13.75 lb/ft³ (220 kg/m³)	ASTM C303							
	Bottom Layer - 10 lb/ft³ (160 kg/m³) - for 2" (50.8mm) and 2.5" (63.5mm) thickness	ASTM C303							
	Bottom Layer - 9.36 lb/ft³ (150 kg/m³) - for >2.5" (63.5mm) thicknesses	ASTM C303							
Dimensional Stability	Linear Shrinkage - 0.71% @ 1200°F (650°C)	ASTM C356							
	Linear Change 7 days @ -40°F (-40°C), ambient RH - 0.1%	ASTM D2126							
	Linear Change 7 days @ 200°F (93°C), ambient RH - 0.1%								
	Linear Change 7 days @ 158°F (70°C), 97% RH - 0.0%								
Hail Performance	Test Standard for Susceptibility to Hail Damage - Class 1 - SH (Severe Hail)	FM 4470							
	Impact Resistance by Impacting with Freezer Ice Balls - Class 4	FM 4473							
	Impact Resistance of Prepared Roof Covering Materials - Class 4	UL 2218							
Thermal Resistance	Mean Temperature	R-Value	RSI Value	ASTM C518 (C177)					
	75°F (24°C)	3.8 hr.ft².F/Btu	0.68 m²K/W						
	25°F (-4°C)	4.3 hr.ft².F/Btu	0.74 m²K/W						
	40°F (4°C)	4.2 hr.ft².F/Btu	0.72 m²K/W						
	110°F (43°C)	3.6 hr.ft².F/Btu	0.64 m²K/W						
Reaction to Moisture	Moisture Sorption - 0.15%	ASTM C1104							
	Water Absorption - <1.0%	ASTM C209							
	Water Vapor Transmission, Desiccant Method - 2330 ng/Pa.s.m² (41 perm)	ASTM E96							
Compressive Strength	Top Layer - 20psi (140kPa) @ 10%, 37psi (250kPa) @ 25%	ASTC C165							
	Entire Board - 11psi (75kPa) @ 10%, 15psi (105kPa) @ 25%								
	Point Load @ 5mm Compression - 30psi (205 kPa)	EN 12430							
Corrosion Resistance	Stress Corrosion Cracking Tendency of Austenitic Stainless Steel - Passed	ASTM C795							
	Corrosion of Steel - Passed	ASTM C665							
Thickness Dimensions	Product available in 2" - 6" (50.8mm - 152.4mm) in 1/2" (12.7mm) increments 48"x48" (1219mm x 1219mm)								
Acoustical Performance	Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000Hz	4000 Hz	NRC	ASTM C423
	2'	0.5	0.71	0.85	0.9	0.96	1.01	0.85	
	Contact ROXUL for STC rated assemblies				ASTM E90				



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