

# TOPROCK® DD

## Flat Roof Insulation



ROCKWOOL TOPROCK® DD is a high-density, uncoated stone wool insulation board for low-slope roof applications. TOPROCK® DD is a suitable substrate board for all low-slope roof decks and is compatible as the substrate for mechanically attached membrane systems.

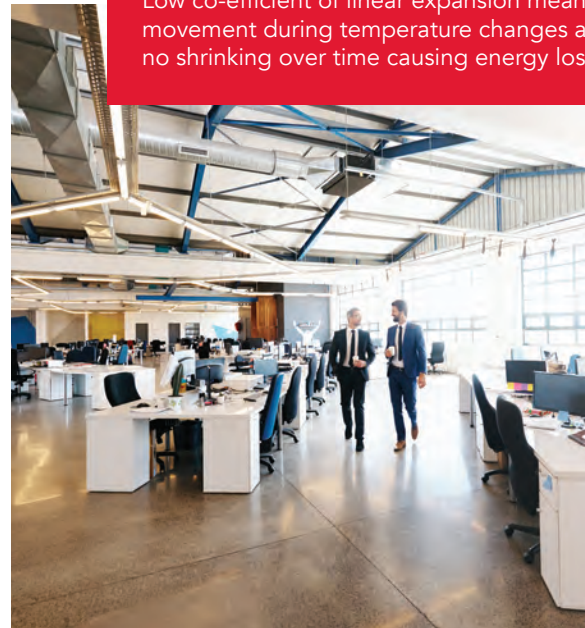
TOPROCK® DD is non-combustible and will not develop toxic smoke or promote flame spread, even when directly exposed to fire. It can be used either as a base layer of thermal insulation in an assembly with TOPROCK® DD Plus or as the top layer of a hybrid roof assembly with polyisocyanurate or other roof insulations.

TOPROCK® DD has exclusive stone wool dual-density properties that feature a higher-density top layer, providing strong point load resistance and effective load distribution to minimize puncture damage to the membrane – particularly during installation.

Learn more at [rockwool.com](http://rockwool.com)

### Dimensionally Stable

Low co-efficient of linear expansion means less movement during temperature changes and no shrinking over time causing energy loss.



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### Technical Data Sheet

Roof Insulation 07220\* • Roof Insulation 07 22 00\*\*  
Mineral Wool Board Insulation 07 21 13\*\*

ROCKWOOL 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 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 NCC (Non Combustible Core) Rated Roof Insulation	ASTM C726 FM 4470  FM 4470																
Reaction to Fire	Flame spread index = 0; Smoke developed index = 0 Flame spread index = 0; Smoke developed index = 0 Determination of Non Combustibility of Building Materials - Non Combustible Standard Method of Fire Tests for Determining Heat Release Rate of Roofing Assemblies with Combustible Above Deck Roofing Components - Class 1 Fire Tests of Roof Coverings - Class A Fire Spread under Roof Deck Assemblies - See ULC Directory Standard Test Methods for Fire Tests of Roof Coverings - Class A Fire Tests of Building Construction and Materials - See UL Directory	ASTM E84 (UL 723) CAN/ULC S102 CAN/ULC S114 NFPA 276  CAN/ULC S107-03 CAN/ULC S126-06 UL 790 (ASTM E108) UL 263 (ASTM E119)																
Density	Top Layer - 13.75 lb/ft <sup>3</sup> (220 kg/m <sup>3</sup> ) Bottom Layer - 10 lb/ft <sup>3</sup> (160 kg/m <sup>3</sup> ) - for 2" (50.8 mm) and 2.5" (63.5 mm) thickness Bottom Layer - 9.36 lb/ft <sup>3</sup> (150 kg/m <sup>3</sup> ) - for >2.5" (63.5 mm) thicknesses	ASTM C303 ASTM C303 ASTM C303																
Dimensional Stability	Linear Shrinkage - 0.71% @ 1200°F (650°C) Linear Change 7 days @ -40°F (-40°C), ambient RH - 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%	ASTM C356 ASTM D2126																
Hail Performance	Test Standard for Susceptibility to Hail Damage - Class 1 - SH (Severe Hail) Impact Resistance by Impacting with Freezer Ice Balls - Class 4 Impact Resistance of Prepared Roof Covering Materials - Class 4	FM 4470 FM 4473 UL 2218																
Thermal Resistance	<table border="1"> <thead> <tr> <th>Mean Temperature</th> <th>R-Value</th> <th>RSI Value</th> </tr> </thead> <tbody> <tr> <td>75°F (24°C)</td> <td>3.8 hr.ft<sup>2</sup>.F/Btu</td> <td>0.68 m<sup>2</sup>K/W</td> </tr> <tr> <td>25°F (-4°C)</td> <td>4.3 hr.ft<sup>2</sup>.F/Btu</td> <td>0.74 m<sup>2</sup>K/W</td> </tr> <tr> <td>40°F (4°C)</td> <td>4.2 hr.ft<sup>2</sup>.F/Btu</td> <td>0.72 m<sup>2</sup>K/W</td> </tr> <tr> <td>110°F (43°C)</td> <td>3.6 hr.ft<sup>2</sup>.F/Btu</td> <td>0.64 m<sup>2</sup>K/W</td> </tr> </tbody> </table>	Mean Temperature	R-Value	RSI Value	75°F (24°C)	3.8 hr.ft <sup>2</sup> .F/Btu	0.68 m <sup>2</sup> K/W	25°F (-4°C)	4.3 hr.ft <sup>2</sup> .F/Btu	0.74 m <sup>2</sup> K/W	40°F (4°C)	4.2 hr.ft <sup>2</sup> .F/Btu	0.72 m <sup>2</sup> K/W	110°F (43°C)	3.6 hr.ft <sup>2</sup> .F/Btu	0.64 m <sup>2</sup> K/W	ASTM C518 (C177)	
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Reaction to Moisture	Moisture Sorption - 0.15% Water Absorption - <1.0% Water Vapor Transmission, Desiccant Method - 2330 ng/Pa.s.m <sup>2</sup> (41 perm)	ASTM C1104 ASTM C209 ASTM E96																
Compressive Strength	Top Layer - 20psi (140kPa) @ 10%, 37psi (250kPa) @ 25% Entire Board - 11psi (75kPa) @ 10%, 15psi (105kPa) @ 25% Point Load @ 5 mm Compression - 30psi (205 kPa)	ASTM C165 EN 12430																
Corrosion Resistance	Stress Corrosion Cracking Tendency of Austenitic Stainless Steel - Passed Corrosion of Steel - Passed	ASTM C795 ASTM C665																
Thickness Dimensions	Product available in 2" - 6" (50.8 mm - 152.4 mm) in 1/2" (12.7 mm) increments 48" x 48" (1219 mm x 1219 mm)																	
Acoustical Performance	<table border="1"> <thead> <tr> <th>Thickness</th> <th>125 Hz</th> <th>250 Hz</th> <th>500 Hz</th> <th>1000 Hz</th> <th>2000Hz</th> <th>4000 Hz</th> <th>NRC</th> </tr> </thead> <tbody> <tr> <td>2"</td> <td>0.5</td> <td>0.71</td> <td>0.85</td> <td>0.9</td> <td>0.96</td> <td>1.01</td> <td>0.85</td> </tr> </tbody> </table> <p>Contact ROCKWOOL for STC rated assemblies</p>	Thickness	125 Hz	250 Hz	500 Hz	1000 Hz	2000Hz	4000 Hz	NRC	2"	0.5	0.71	0.85	0.9	0.96	1.01	0.85	ASTM C423  ASTM E90
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2"	0.5	0.71	0.85	0.9	0.96	1.01	0.85											



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NOTE: \*Master Format 1995 Edition \*\*Master Format 2004 Edition. As ROCKWOOL has no control over installation design and workmanship, accessory materials or application conditions, ROCKWOOL does not warranty the performance or results of any installation containing ROCKWOOL's products. ROCKWOOL's overall liability and the remedies available are limited by the general terms and conditions of sale. This warranty is in lieu of all other warranties and conditions expressed or implied, including the warranties of merchantability and fitness for a particular purpose.



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