

## Fire Testing Data

List of the tests/results with qualifications and requirements for NFPA285 assemblies

- ASTM E84 – Class A Rating (FSI = 15, SDI = 70)
- ASTM D 1929 = Pass (Self Ignition Temperature Greater than 650 degrees Celsius)
- NFPA 268 – Surface Ignition Test = Pass
- NFPA 285 – Intermediate Scale Multi Story Apparatus Test = Pass\*

THIS IS AN ASSEMBLY TEST, FOR ASSEMBLIES THAT ARE NFPA285 COMPLIANT. SEE DETAILS AND NOTES FOR OPTIONS.

### FOR NFPA285 COMPLIANT ASSEMBLIES:

Base wall to be minimum 18 gauge metal stud framing with 5/8" gypsum sheathing both sides, concrete, or CMU. For these assemblies, panels must be mounted over extruded aluminum mounting systems. Weather resistive barriers can be chosen from the list below based on the amount of exterior mineral wool insulation used in the design. Note that walls not using exterior insulation are also NFPA285 compliant when WRB's from the list below under "Less than 2" of Insulation" are used.

### WEATHER RESISTIVE BARRIER OPTIONS FOR NFPA285 ASSEMBLIES

LESS THAN 2-INCH LAYER OF MINERAL WOOL	
SUPPLIER	WATER-RESISTIVE BARRIER PRODUCTS
Prosoco	R-Guard Spray Wrap, R-Guard MVP
Dupont	Tyvek, Tyvek Commercial
VaproShield	WrapShield (Green), Reveal Shield, Wrap Shield (Orange, as tested)
Pactive GreenGuard	C500, C200, RainDrop 3D, Classic Wrap
Cosella Dorken	Delta-Vent S/Plus, Delta-Foxx/Plus, Delta-Maxx/Plus
3M	Self-Adhered AVB Membrane 3015
Davis Wire	Building Paper
Mid-State	Building Paper
Hohmann & Barnard	Enviro Barrier VP (15 mils DFT)

### 2-INCH OR THICKER LAYER OF MINERAL WOOL

Any WRB can be used including asphaltic, butyl based products.

### MINERAL INSULATION REQUIREMENTS FOR WALLS USING EXTERIOR INSULATION:

- The mineral wool must meet the requirements of ASTM C612.
- The mineral wool shall not have any type of facer (foil, etc.) on either side.
- The mineral wool shall be non-combustible via ASTM E 136 testing;
- The R value of the mineral wool shall be a minimum of 2.0.
- The mineral wool insulation must be securely attached to the wall system by either being mechanically attached back to the base wall assembly using insulation pins or equivalent or friction fit within the exterior wall assembly cladding rail system.
- The density of the mineral wool must be a minimum of 4lbs per cubic foot.

## Technical Properties Datasheet

### FUNDERMAX MAX COMPACT EXTERIOR, F QUALITY, NT SURFACE

PROPERTIES	TEST METHOD	STANDARD VALUE	
<b>MECHANICAL PROPERTIES</b>			
Panel Core		Standard Dark Brown Core, Finish on both sides	
Porosity		Non Porous surface and edges	
Antimicrobial Characteristics			
Fundermax panels do not support microorganic growth			
Modulus of Elasticity	property tested according to ES 438.2	≥ 9000 N/mm <sup>2</sup>	≥ 1,305,340 psi
Tensile Strength	property tested according to ES 438.2	≥ 80 N/mm <sup>2</sup>	≥ 11,603 psi
Flexural Strength	property tested according to ES 438.2	≥ 90 N/mm <sup>2</sup>	≥ 13,053 psi
Density	Per EN ISO 1183-1	1.35 g/cm <sup>3</sup>	1 N/mm <sup>2</sup> = 1MPa
Surface Impact Resistance	Falling ball test per EN 438-2:21, (standard value = 10 mm)	≤ 10 mm	
Scratch Resistance	Per EN 438-2:25	4-6 N	4 N = .9 lbf
Abrasion Resistance	1 U = 1 cycle of rotation, property as tested per ES 438.2	≤ 450 U	
Color Stability – Artificial Weathering incl. Lightfastness	Per EN ISO 4892-2, industry standard ≥ 3	Greyscale value 4-5	
Resistance to Fixings – Pullout Strength ISO		≥ .3937 in	≥ 4000 N

PROPERTIES	TEST METHOD	STANDARD VALUE	
<b>FIRE BEHAVIOR</b>			
Burning Classification	As tested per ASTM E84	Class A rating	
<b>PANEL THICKNESS</b>			
<b>8 mm</b>			
FSI (Flame Spread Index)	As tested per ASTM E84	15	
SDI (Smoke Develop Index)	As tested per ASTM E84	70	

PROPERTIES	TEST METHOD	STANDARD VALUE	
<b>MECHANICAL PROPERTIES</b>			
Thermal Conductivity		0.3 W/mK	
Water Vapor Diffusion Resistance		ca. 17.200	
Dimensional Changes during climatic	Dimensional Stability per EN 438-2:17	I %	0.1
Changes, measured at elevated temperatures		Q %	0.25
Dimensional Tolerance of Nominal Sizes			
(±10 mm / - 0 mm)			
Dimensional Tolerance of Thicknesses			
		+/- .5 mm	≤ 12 mm
Resistance to Chemicals	Fundermax panels are highly resistant to many chemicals, complete list available on request		
Ease of maintenance/Cleaning	Fundermax panels resist dirt, easily cleaned with common agents, complete list available		

**SEE FUNDERMAX ICC ESR #3340 FOR ICC AC92 COMPLIANCE (NFPA285 ASSEMBLIES, AND ALL OTHER IBC CODE PRESCRIBED TESTS)**

NOTE  
VALUES ARE AVERAGE VALUES.