

Product Data Sheet

Foamular 300 *Extruded Polystyrene Foam*

Owens Corning FOAMULAR 300 extruded polystyrene insulation is ideal for wall furring, perimeter/ foundation, cavity wall, crawlspace, pre-cast concrete, under slab, roofing systems, cladding and other applications.

Owens Corning's patented Hydrovac® process technology make the unique closed-cell structure of FOAMULAR insulation highly resistant to moisture, retaining its long term R-value* year after year – even following prolonged exposure to water leakage, condensation, ground-water and freeze/thaw cycling.



Performance Benefits

- High R-value compared to more traditional insulation products

Foamular 300	
Thickness	R Value @ 18 degrees C
30mm	1.1
40mm	1.5
50mm	1.9
60mm	2.2
100mm	3.7

- Minimum compressive strength of 300 kPa.
- HBCD Fire Retardant free; meets NZ's obligations under the Stockholm protocol
- Effective resistance against moisture, mildew, corrosion and rot.
- Ease of handling and installation (lightweight, tough, rigid foam panels).
- Easy to saw, cut and score
- Wide selection of sizes and thicknesses
- Available in straight, tongue and groove, or scored square edges.

Product Applications

Superior insulation performance for a wide variety of building requirements. High-performance FOAMULAR 300 works:

- When joints are taped, provides a weather resistant barrier to enhance the longevity of the building.
- Provides insulation in a metal or wood furring system used for masonry or concrete walls.
- Performs below ground in perimeter and foundation applications, or directly beneath the concrete slab to complement the insulating sheathing envelope around the building framing.
- FOAMULAR is ideal for below ground applications. Extruded polystyrene (XPS) is resistant to degradation from material common to most soils and will retain its insulating performance characteristics even after prolonged exposure to moisture.

Technical Information

FOAMULAR insulation is ideal for all buildings under normal temperature conditions, but should not be used in contact with chimneys, heater vents, steam pipes or other surfaces where temperatures exceed 75°C.

FOAMULAR insulation is a non-structural material and must be installed on framings which are independently structurally adequate to meet required construction and service loading conditions.

Caution

Like other expanded and extruded polystyrenes, plasticiser migration will occur if Foamular comes into contact with plastic cabling; please ensure this is avoided by means such as wrapping cabling in a craft type paper where the two might come into contact

This product will ignite if exposed to fire of sufficient heat and intensity. See the conditions of use section of the code evaluation reports for specific applications. During shipping, storage, installation and use, this product should not be exposed to open flame or other ignition sources.

Note: **Foamular 300** (green column below) is ex stock, the other grades are indent only and subject to minimum order quantities

Properties	Standard	Unit	FM150	FM250	FM300	FM350	FM400	FM450	FM500	FM550	FM600	FM650
Density (minimum)		kg/m³	25-28	31-35	36-40	38-42	38-44	40-45	40-45	40-46	40-46	46-48
Thermal Conductivity (90 days, 10°C)		W/mk	≤ 0.026									
Thermal Conductivity (90 days, 24°C)	ASTM C518	W/mk	≤0.028									
Compressive Strength	ASTM 1621	kpa	≥ 150	≥ 300	≥ 300	≥ 350	≥ 400	≥ 450	≥ 500	≥ 550	≥ 600	≥ 650
Tensile Strength	ASTM D1623	kpa	200	300	330	500	550	600	650	700	750	800
Flammability	ASTM E84		5 (Class A)									
Design Load for traffic		kN/m2	60	90	110	120	135	145	160	190	230	300
Water Vapour permeability	ASTM E96	ng/(pa.s.m²) @ 25.4mm	≤ 63	≤ 63	≤ 35	≤ 35	≤ 35	≤ 35	≤ 35	≤ 35	≤ 35	≤ 35
Water absorption	ASTM C272		≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05
Temperature limits		°C	Minus 50 to Plus 75 degrees									
Length		mm	1200 and 2400 long is available									
Width		mm	600 and 1200 wide is available									
Thickness		mm	20, 25, 30, 40, 50, 60, 70, 80	20, 25, 30, 40, 50, 60, 70, 80, 90, 100	25, 30, 40, 50, 60, 70, 80, 90, 100	30, 40, 50, 60, 70, 80, 90, 100	40, 50, 60, 70, 80, 90, 100	40, 50, 60, 70, 80, 90, 100	40, 50, 60, 70, 80, 90, 100	40, 50, 60, 70, 80	50, 60	50, 60
Minimum Thickness (Square Edge)		mm	20	20	25	25	40	40	40	40	40	40
Minimum Thickness (Shiplap Edge)		mm	25	25	25	25	40	40	40	40	40	40
Edge profile		Square Edge and Shiplap										
Applications												
concrete flat roofs			X	X	X							
parking decks				X	X							
metal roofs			X	X	X							
exterior walls			X	X	X							
cavity walls			X	X	X							
cold storage floors				X	X	X	X	X	X	X	X	X
cold storage walls			X	X	X							
cold storage ceilings				X	X	X						
ice rinks				X	X	X	X					
highways						X	X	X	X	X	X	X
airport runways							X	X	X	X	X	X
sandwich panels			X	X	X							

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AUCKLAND
09 276 4000

HAMILTON
07 850 8395

WELLINGTON
04 568 7132

CHRISTCHURCH
03 379 9329

DUNEDIN
03 474 1800