



Applications and Properties for STYROFOAM* Products

FABRICATION APPLICATIONS			STYROFOAM RTM	STYROFOAM HD300	STYROFOAM LB	STYROFOAM LT	STYROFOAM SP
REFRIGERATED TRANSPORT	Truck	Walls	●				
		Floor	●	●			
		Roofs	●				
		Doors	●				
COLDSTORAGE	Coldstore	Floors					●
		Highly Loaded Floors		●			
		Panels			●	●	
COMPOSITE PANELS	Building Panels	Curtain Walling			●		
		Infill			●		
		General Laminates			●		

PROPERTIES	STANDARD	UNIT	STYROFOAM RTM	STYROFOAM HD300	STYROFOAM LB	STYROFOAM LT	STYROFOAM SP
Density (minimum)	BS4370: Method 2	kg/m ³	40	45	30	28	34
Thermal conductivity (90 days, 10 °C)	BS4370: Method 7	W/mK	0.025	0.025	0.027	0.024 ⁽¹⁾	0.027
Compressive strength at 10% deflection	BS4370: Method 3	kN/m ²	400	700	300	250	350
Compressive modulus	BS4370: Method 3	kN/m ²	16-25,000	25-33,000	12-20,000	12-15,000	10-22,000
Tensile strength	DIN 53292	kN/m ²	700	1000	500	450	—
Tensile modulus	DIN 53292	kN/m ²	16-25,000	25-33,000	12-20,000	12-15,000	—
Shear strength	ASTM C- 273	kN/m ²	400	500	250	250	—
Shear modulus	ASTM C- 273	kN/m ²	10,000	14,000	8,000	8,000	—
Design compressive stress which gives 2% compression after 20 years.	PREN 1606	kN/m ²	—	250	—	—	120
Water vapour resistivity	BS4370: Method 8	μ - value	100-160	100-160	100-160	80-160	100-160
Water absorption by immersion (28 days, full boards)	DIN 53434	% - vol.	0.5	0.5	0.5	0.5	0.5
Capillarity	—	—	nil	nil	nil	nil	nil
Coefficient of linear thermal expansion	BS4370: Method 13	mm/mK	0.07	0.07	0.07	0.07	0.07
Temperature limits	—	°C	-50/+75	-50/+75	-50/+75	-50/+75	-50/+75
Fire classification	BS3837: Part 1 1986	—	A	A	A	A	A
Size: Length	—	mm	2500	2500	2500	2500/6000	2500
Width	—	mm	600, 1200	600	600, 1200	605	600
Thickness ⁽²⁾	—	mm	20-120	40-100	20-120	125, 150	50-100
Tolerances thickness	—	mm	+/-0.5	+/-0.5	+/-0.5	+/-0.5	+/-3.0
Width (600mm board)	—	mm	+3/-0	+3/-0	+3/-0	+3/-0	+3/-0
Width (1200mm board)	—	mm	—	—	—	+5/-0	+5/-0
Length (600mm board)	—	mm	+10/-0(2500)	+10/-0	—	+10/-0	+10/-0
Length (1200mm board)	—	mm	+15/-0 (6000)	—	—	+15/-0	+15/-0
Edge profile	—	—	butt	butt	butt	butt	butt
Surface	—	—	planed with or without grooves	planed with or without grooves	planed	planed	skin

⁽¹⁾ STYROFOAM LT is tested at 30 days and 10°C for thermal conductivity

⁽²⁾ Special dimensions are available on request



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CONSTRUCTION APPLICATIONS			DECKMATE CM	ROOFMATE SL	FLOORMATE 200	FLOORMATE 350	FLOORMATE 500	FLOORMATE 700	PERIMATE DI	STYROFOAM IB	STYROFOAM LB	
ROOFS	Warm Flat Roof	Insulation beneath light coloured SPRM	●									
	Lightweight Inverted Roof	Gravel covered		●								
		Paved		●								
		Roof Garden		●								
		Roof top car park		●			●					
Cold Roof	"Lost formwork"								●	●		
WALLS	External Insulation	Render and/or cladding system								●	●	
		Cold bridge insulation								●	●	
	Internal Insulation	STYROFOAM plasterboard laminate										●
		Tile backing									●	
		Beneath wet plaster									●	
FLOORS	Above Concrete Slab	Covered with screed			●	●						
		Covered with chipboard/ timber			●	●						
	Below Concrete Slab	Below ground bearing slab			●	●	●	●				
		Industrial floors				●	●	●				
	Soffit Insulation	"Lost formwork"								●		
UNDER-GROUND	Basement Walls	Insulation against tanking							●			
		Drainage and insulation							●			
		Foundations							●			

PROPERTIES	STANDARD	UNIT	DECKMATE CM	ROOFMATE SL	FLOORMATE 200	FLOORMATE 350	FLOORMATE 500	FLOORMATE 700	PERIMATE DI	STYROFOAM IB
Density (minimum)	BS4370: Method 2	kg/m ³	26	32	25	34	38	45	32	28
Thermal conductivity (90 days, 10°C)	BS3837: Part 2: 1990 Appendix G	W/mK	0.028	0.028	0.028	0.027	0.026	0.027	0.028	0.033
Compressive strength at 10% deflection	BS4370: Method 3	kN/m ²	200	300	200	350	500	700	300	250
Design load for traffic		kN/m ²	60	110	60	120	160	250	100	90
Water vapour permeability (δ)	BS3837: Part 2: 1990 Appendix D	ngm/Ns	1.4	1.2	1.6	1.2	1.0	1.0	1.2	1.9
Water absorption	BS3837: Part 2: 1990 Appendix E	% - vol.	0.3	0.3	0.3	0.3	0.3	0.3	0.5	1.0
Size: Length	—	mm	2500	1250	1200	1200	1250	1250	1250	2438
Width	—	mm	600	600	600	600	600	600	600	600
Temperature limits	—	°C	-50/+75	-50/+75	-50/+75	-50/+75	-50/+75	-50/+75	-50/+75	-50/+75
Thickness	—	mm	50, 60, 80, 100	50, 60, 75, 90, 100, 120	25, 30, 35, 50	30, 50, 75	50, 75	50, 80	50	25, 50, 60, 75, 150
Edge profile	—	—	tongue and groove	shiplap	butt edge	butt edge	shiplap	shiplap	shiplap	butt edge
Surface	—	—	skin	skin	skin	skin	skin	skin	grooved	planed