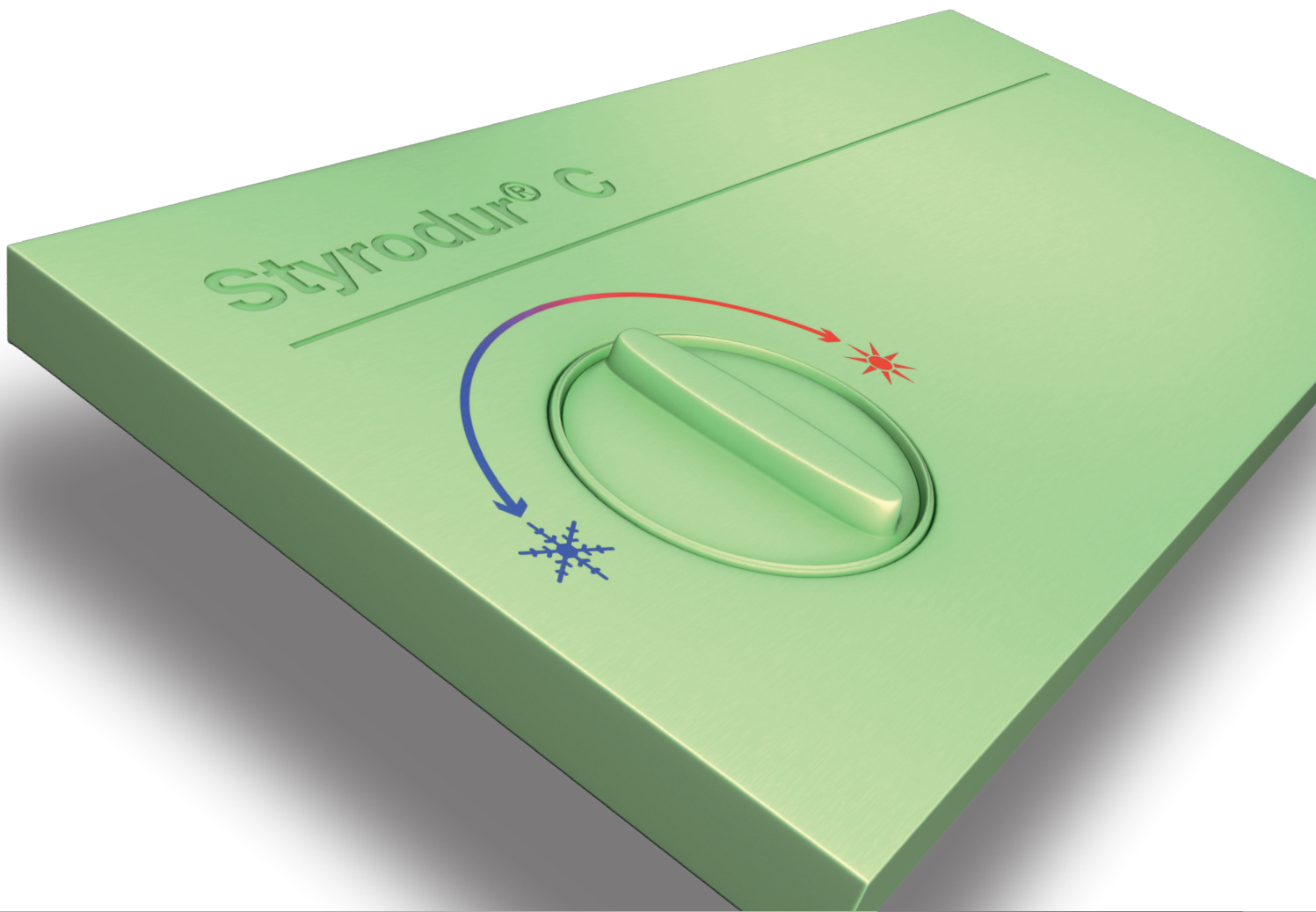


Recommended Applications and Technical Data



Recommended Applications Styrodur® C

Styrodur® C	2500 C	2800 C	3035 CS	3035 CN	4000 CS	5000 CS
Perimeter ¹⁾ floor slabs			■		■	■
Perimeter ¹⁾ basement walls			■		■	■
Perimeter ¹⁾ load-bearing floor slabs			■		■	■
Perimeter ¹⁾ /subsoil water areas			■		■	■
Domestic floor	■	■	■			
Industrial and refrigerated warehouse floors	■	■	■		■	■
Cavity walls	■		■	■		
Internal walls		■				
Lost formwork		■				
Cold bridges		■				
Exterior basement wall insulation		■				
Plaster base		■				
Inverted flat roofs			■		■	■
Duo roofs/Plus roofs			■		■	■
Promenade roofs			■		■	■
Roof gardens			■		■	■
Parking decks					■ ²⁾	■
Conventional flat roofs ³⁾	■		■		■	■
Parapet walls	■	■	■			
Basement ceiling / Underground garage ceiling		■				
Attic ceiling			■			
Pitched roofs	■	■		■		
Ceilings	■			■		
Drywall composite board		■				
Sandwich panels	■	■				
Warehouses	■		■	■	■	■
Ice rinks			■		■	■
Road transport infrastructure / Rail construction			■		■	■







Styrodur® C: Product approval: DIBt Z-23.15-1481,
extruded polystyrene foam conforming to EN 13164
Free of HCFC and HFC

¹⁾ = Insulation in direct contact with the ground

²⁾ = Not for installation under concrete paving stones

³⁾ = With protective layer over the sealing

Technical Data Styrodur® C

Property	Unit	Code according to EN 13164	2500 C	2800 C	3035 CS	3035 CN	4000 CS	5000 CS	Standard	
Edge profile										
Surface			skin	embossed	skin	skin	skin	skin		
Length x width	mm		1250 x 600	1250 x 600	1265 x 615	2515 x 615 ²⁾	1265 x 615	1265 x 615		
Thermal conductivity	λ_D [W/(m·K)]		λ_D	λ_D	λ_D	λ_D	λ_D	λ_D	EN 13164	
Thermal resistance	R_D [m ² ·K/W]		R_D	R_D	R_D	R_D	R_D	R_D		
Thickness										
	20 mm	–	0.032	0.65	0.032	0.65	–	–	–	–
	30 mm	–	0.032	0.95	0.032	0.95	0.032	0.95	0.032	0.95
	40 mm	–	0.034	1.20	0.034	1.20	0.034	1.20	0.034	1.20
	50 mm	–	0.034	1.50	0.034	1.50	0.034	1.50	0.034	1.50
	60 mm	–	0.035	1.75	0.035	1.75	0.035	1.75	0.035	1.75
	80 mm	–	–	–	0.036	2.25	0.036	2.25	0.036	2.25
	100 mm	–	–	–	0.038	2.65	0.038	2.65	–	–
	120 mm	–	–	–	0.038	3.20	0.038	3.20	0.038	3.20
	140 mm	–	–	–	0.040	3.40	0.040	3.40	–	–
	160 mm	–	–	–	–	–	–	–	–	–
	180 mm	–	–	–	–	–	–	–	–	–
	200 mm	–	–	–	–	–	–	–	–	–
Compressive stress or compressive strength at 10% deformation ¹⁾	kPa	CS(10\Y)	200	200	300	250	500	700	EN 826	
Compressive creep over 50 years at < 2% deformation ¹⁾	kPa	CC(2/1.5/50)	80	80	130	100	180	250	EN 1606	
Rated value of the compressive stress under foundation slabs ¹⁾	kPa	–	–	–	185 ³⁾	–	255	355	DIBT Z-23.34-1325	
Adhesive strength on concrete	kPa	TR 200	–	> 200	–	–	–	–	EN 1607	
Compressive modulus of elasticity	Short-term E	CM	10,000	15,000	20,000	15,000	30,000	40,000	EN 826	
	Long-term E50		–	–	5,000	–	10,000	14,000		
Dimensional stability: 70°C; 90% r. h.	%	DS(TH)	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	EN 1604	
Deformation behavior: load 40 kPa; 70°C	%	DLT(2)5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	≤ 5	EN 1605	
Linear coefficient of thermal expansion	Longitudinal	–	0.08	0.08	0.08	0.08	0.08	0.08	DIN 53752	
	Transverse		0.06	0.06	0.06	0.06	0.06	0.06		
Reaction to fire	Building material class	–	B1	B1	B1	B1	B1	B1	EN 4102	
	Euroclass	–	E	E	E	E	E	E	EN 13501-1	
Long-term water absorption by immersion	% v/v	WL(T)0.7	0.2	0.3	0.2	0.2	0.2	0.2	EN 12087	
Long-term water absorption by diffusion	% v/v	WD(V)3	< 3	–	< 3	< 3	< 3	< 3	EN 12088	
		WD(V)5	–	< 5	–	–	–	–		
Water-vapor transmission (thickness-dependent)		MU	200–100	200–80	150–50	150–100	150–80	150–100	EN 12086	
Freeze-thaw resistance	% v/v	FT2	≤ 1	–	≤ 1	≤ 1	≤ 1	≤ 1	EN 12091	
Maximum service temperature	°C	–	75	75	75	75	75	75	EN 14706	

1) 100 kPa = 10 N/cm² = 10 to/m²

2) Thickness 30 and 40 mm: 2510 x 610 mm

3) For multilayer laying: 140 kPa

Current information on technical data can also be found on our homepage www.styrodur.com in the “Download” section.

Styrodur® C—A Strong Product Line

With the Styrodur® C product line, BASF offers the ideal insulation solution for almost every application.

Styrodur 2500 C

- The light thermal insulation board with smooth surface and smooth edges for applications with normal compressive strength requirements.

Styrodur 2800 C

- The thermal insulation board with embossed honeycomb pattern and smooth edges for application in combination with concrete, plaster, and other covering layers.



Styrodur 3035 CS

- The all-round thermal insulation board with smooth surface and overlap is suitable for almost all applications in structural and civil engineering.

Styrodur 3035 CN

- The long thermal insulation board with smooth surface and groove and tongue for quick, thermal bridge-free installation.

Styrodur 4000/5000 CS

- The extremely compression-proof thermal insulation board with smooth surface and overlap for applications with highest compressive strength requirements.

Styrodur HT

- The light green, high temperature-resistant thermal insulation board for all areas of application with thermal loads of up to 105 °C. Further information: www.styrodur.com

Styrodur NEO

- The silver-gray thermal insulation board with a 20% better insulating performance thanks to the BASF-patented use of graphite as an infrared absorber. Further information: www.styrodur.com

Note:

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may be changed without prior notice and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. (September 2011)

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