

1 Typical property values | Overview of typical values

(at 23°C and 50 % rel. humidity)

(continued)

Thermal properties

	PLEXIGLAS® GS 233; 222; 209 (0F00; 0F00; 0Z09)	PLEXIGLAS® XT 20070; 29070 (0A000; 0A070)	PLEXIGLAS RESIST® 45; 65; 75; 100	Unit	Test standard
Coefficient of linear thermal expansion α for 0 ... 50 °C	$7 \cdot 10^{-5}$ (= 0.07)	$7 \cdot 10^{-5}$ (= 0.07)	$7 \cdot 10^{-5}$; $8 \cdot 10^{-5}$; $9 \cdot 10^{-5}$; $11 \cdot 10^{-5}$ (0.07; 0.08; (0.09; 0.11)	1/K (mm/m °C)	DIN 53752-A
Possible expansion due to heat and moisture	5	5	5; 6; 6; 8	mm/m	-
Thermal conductivity λ	0.19	0.19	-	W/mK	DIN 52612
U-value, for thickness					
1 mm	5.8	5.8	5.8		
3 mm	5.6	5.6	5.6		
5 mm	5.3	5.3	5.3		
10 mm	4.4	4.4	4.4	W/m²K	DIN 4701
Specific heat c	1.47	1.47	1.47	J/gK	-
Forming temperature	160...175	150...160	150...160; 140...150; 140...150; 140...150;	°C	-
Max. surface temperature (IR radiator)	200	180	-	°C	-
Max. permanent service temperature	80	70	* 70; 70; 70; 65	°C	-
Reverse forming temperature	>80; >80; >90	>80; >80	>80; >80; >75; >70	°C	-
Ignition temperature	425	430	-	°C	DIN 51794
Smoke gas volume	very little	very little	very little	-	DIN 4102
Smoke gas toxicity	non	non	non	-	DIN 53436
Smoke gas corrosiveness	non	non	non	-	-
Class	B2 Class 3 TP (b)	B2 Class 3 TP (b)	B2 - -	- - -	DIN 4102 BS 476, Part 7 + 6 BS 2782, Methode 508 A
Class	E	E	E	-	DIN EN 13501
German building inspectorate test report	P-K017 / 11.06	P-K018 / 02.07	P-K019 / 05.07	-	-
Vicat softening temperature	115	103	102; 100; 100; 97	°C	ISO 306, Method B 50
Heat deflection temperature under load (HDT)					
a) deflection 1.8 MPa	105; 105; 107	95	94; 93; 92; 90		
b) deflection 0.45 MPa	113; 113; 115	100	99; 98; 96; 93	°C	ISO 75

*) Hazing occurs at about 35°C or higher; this is reversible after cooling down.