FICHA TECNICA

PVC

Properties	Test method	Unit	Thickness (mm) 4, 5, 6	Thickness (mm) 8, 10, 13	Thickness (mm) 19, 24, 30
Mechanical properties					
(Apparent) Density*	DIN 53479/ISO 1183	g/cm³	0.65–0.80	0.55–0.60	0.50–0.60
Tensile stress at yield (tensile strength)	DIN 53455/ISO 527	MPa	≥ 20	≥ 13	–
Elongation at tear	DIN 53455/ISO 527	%	≥ 30	≥ 15	–
Flexural strength	DIN 53452/ISO 178	MPa	≥ 30	≥ 20	≥ 20
Compressive strength (range of elasticity per Hooke)	DIN 53421 (based on)	MPa	> 8	> 3	> 3
Compressive stress at 30%	DIN 53421 (based on)	MPa	> 14	> 7	> 7
Modulus of elasticity	DIN 53452/ISO 527-2/1A/50	MPa	~ 1100	~ 800	~ 800
Impact strength +20 °C	DIN 53453/ISO 179 (based on)	kJ/m²	AV 15*	AV 20*	AV 25*
0°C	DIN 53453/ISO 179 (based on)	kJ/m²	AV 13*	AV 15*	AV 20*
–20 °C	DIN 53453/ISO 179 (based on)	kJ/m²	AV 10*	AV 10*	AV 15*
Ball indentation hardness (132 N/30 s)	DIN 53456/ISO 2039-1	MPa	≥ 15	≥ 12	≥ 25
Shore hardness D	DIN 53505		~ 55	~ 75	~ 77
AV* = average value. Values not stated cannot be measured in accordance with the relevant standards.					
Thermal properties					
Vicat softening temperature	DIN 53460/ISO 306 (process A50)	°C	≥ 75	≥ 75	77
Deflection temperature	DIN 53461/ISO 75 (process A50)	°C	~ 56	~ 63	–
Coefficient of linear thermal expansion α (from –30 °C to +50 °C)	DIN 53752	mm/mK	≤ 0.08	≤ 0.08	≤ 0.08
Thermal conductivity λ (from 0 °C to +60 °C)	DIN 52616	W/mK	0.10	0.05–0.07	
U-value* (heat transfer coefficient)	DIN 52616	W/m²K	10 mm: appr. 3.0	13 mm: 2.6	19 mm: 2.13; 24 mm: 1.9; 30 mm: 1.58
Values not stated cannot be measured in accordance with the relevant standards.					
Electrical properties					
Surface resistance	DIN VDE 0303 T3/ DIN IEC 93	Ω	10^{14}	10^{14}	10^{14}
Volume resistivity	DIN VDE 0303 T3/ DIN IEC 93	Ω · m	10^{15}	10^{15}	10^{15}
Dielectric strength (sample thickness 4 mm)		DIN VDE 0303 T21	kV/mm	≥ 12	
Comparative figure of tracking	DIN IEC 112		CTI 600	CTI 600	CTI 600
Other properties					
Weighted sound reduction index R_{W1P}	DIN 52210/84	dB	–	10 mm: 28	19 mm: 31; 24 mm: 33; 30 mm: 34
Water absorption after 7 days	DIN 53495	%	< 0.2	appr. 0.2	appr. 0.2
Fire behaviour	DIN 4102 (D)		B 1 (colour 654, thicknesses 4, 5, 6, 10 mm)		
	NFP 92-501 (F)		M 1 (colour 654, thicknesses 4, 5, 6, 10 mm)		
	UL 94 (USA)		VO	VO (10 mm)	
	Brandkennziffer (fire charac.) (CH)		5.3	5.3	5.3
	CSE-RF2/75 A (I)		Class 1 (colour 654, thicknesses 4, 5, 6, 10 mm)		
	CSE-RF3/77 (I)				
Physiological evaluation			generally recognised as safe		
Components used to prevent falls	TRAV**		–	–	Category C requirements met

* These are standard values that apply to an average density.
**Technical Rules for the Use of Safety Glazing.
Minor variations are possible depending on the sheet thickness.