Technical data Cleanpanel panels

CleanPanel®

Properties		Unit	Values
Mechanical properties			
Apparent density*	DIN 53479/ISO 1183	g/cm3	~ 1,43
Tensile stress at yield (tensile strength)	DIN 53455/ISO 527	N/mm2	≥ 44
Elongation at tear	DIN 53455/ISO 527	%	≥ 15
Flexural strength	DIN 53452/ISO 178	MPa	≥ 80
Compressive strength	DIN 53454/ISO 3605	MPa	≥ 70
Modulus of elasticity	DIN 53457/ISO 527-2/1A/50	N/mm2	≥ 2200
Notched impact strength	DIN 53453/ISO 179-1ePA	KJ/m2	≥ 20
Impact strength	DIN 53453/ISO 179	KJ/m2	
0 °C			no failure
–20 °C			–
–30 °C			–
–40 °C			–
Ball indentation hardness (358 N/30 s)	DIN 53456/ISO 2039	MPa	~ 100
Shore hardness	D DIN 53505		82
Thermal properties			
Vicat softening temperature	DIN 53460/ISO 306 (process B50)	°C	≥ 78
Deflection temperature	DIN 53461/ISO 75	°C	~ 68
Coefficient of linear thermal expansion from –30 °C to +50 °C	(process Ae) DIN 53752	mm/mK	0.08
Thermal conductivity from 0 °C to +60 °C	DIN 52612	W/mK	0.16
Electrical properties			
Dielectric constant Er (at 1 kHz)	VDE 0303 T4	–	3.4
Dielectric dissipation factor tan δ (at 1 kHz)	VDE 0303 T4	–	0.016
Surface resistance	DIN VDE 0303 T30/ DIN IEC 93	Ω	10^{15}
Volume resistivity	DIN VDE 0303 T30/ DIN IEC 93	Ω • m	10^{14}
Dielectric strength	DIN VDE 0303 T21 1 mm sheet	KV/mm	≥ 23
Tracking resistance	DIN IEC 112	Grade	CTI 600
Arc resistance	DIN VDE 0303 T5	Ident. No.	2.2.2.2
Other properties			
Water absorption after 7 days	DIN 53495	%	< 0.08
Fire behaviour	DIN 4102- B 1	–	1–3 mm
	UL 94 (USA) File E100599	–	≥ 1 mm
	BS476 Part 7	Class 1	

*These are standard values which apply to an average density.