

TECHNICAL DATA WACOSIT®

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Mechanical properties WACOSIT® profiles

Profile type	Spec. weight appr. g/cm ³	Tensile strength longitudinal N/mm ²	Elongation at break %	Compressive strength perpendicular to the layer N/mm ²	Bending strength longitudinal N/mm ²	Tensile modulus N/mm ²	Linear coefficient of thermal expansion K ⁻¹	Water absorption appr. % by weight
Glass/Epoxyde	2.1	700	2	> 115	900	35 · 10 ³	10 · 10 ⁻⁶	0.2 - 0.3
Glass/Polyester	1.9	700	2	> 115	800	35 · 10 ³	10 · 10 ⁻⁶	1
Carbon/Epoxyde	1.6	1,400	0.6	> 165	1,500	130 · 10 ³	0.2 · 10 ⁻⁶	0.2

Electrical properties WACOSIT® profiles

Profile type	Breakdown voltage*) kV/cm	Dielectric constant (50 Hz - 1 MHz)	Dielectric loss factor	Surface resistance Ω/□	Creep resistance CTI	Volume resistivity Ω · cm	Arc resistance sec.
Glass/Epoxyde	> 15.0	5 - 5.5	0.03	10 ¹²	300	> 10 ¹⁴	60 - 120
Glass/Polyester	> 15.0	4.8	0.03	10 ¹² - 10 ¹⁴	600	3 · 10 ¹³	80 - 120

Thermal properties WACOSIT® profiles

Profile type	Heat conductivity W/m · K	Continuous operating temperature*) °C
Glass/Epoxyde	0.23	180
Glass/Polyester	0.20	155

*) measured at a material thickness of 3 mm
**) for electrical equipment of heat class H or F

Resistance of WACOSIT® profiles upon exposure to chemicals (at room temperature)

Medium	G-EP	G-UP	Medium	G-EP	G-UP	Medium	G-EP	G-UP
Formic acid 90% strength	☺	☺	Methanol	☺	☺	Mineral oils	☺	☺
Acetic acid	☺	☺	Ethanol	☺	☺	Gasoline	☺	☺
Nitric acid 5% strength	☺	☹	Acetone	☺	☺	Ammonium hydroxide	☺	☺
Nitric acid 20% strength	☹	☹	Phenol 5% strength	☺	☺	Calcium hydroxide	☹	☹
Phosphoric acid	☺	☺	Trichloroethylene	☺	☹	Sodium hydroxide	☹	☹
Sulfuric acid 70% strength	☺	☹	Formaldehyde 37% strength	☺	☺	Chlorine	☺	☺
Sulfuric acid 93% strength	☹	☹	Ethylene chloride	☺	☺	Water	☺	☺
Dry sulfur dioxide gas	☺	☺	Carbon tetrachloride	☺	☹	Oxygen	☺	☺
Ethyl acetate	☺	☹	Chloroform	☺	☹			

☺ resistant
☺ limited resistance
☹ not resistant

G-EP = WACOSIT® with glass/epoxy resin
G-UP = WACOSIT® with glass/polyester resin