

Type according EN-60893	Unit	EPGC201	EPGC203	EPGC308	EPGC202	EPGC204	EPGC204EPGC308CTI 600V0	SIGC202
Used name		Glass epoxy sheet G10	Glass epoxy sheet G11 155 ⁰	Glass epoxy sheet G11 180 ⁰	Glass epoxy sheet FR-4	Glass epoxy sheet FR-5	Glass epoxy sheet 308CTI600V0	Glass epoxy sheet G7 (Si)
Type according to DIN 7735		Hgw 2372	Hgw 2372.4		Hgw 2372.1	Hgw 2372.2		Hgw 2572
Type according to NEMA		G-10	G-11		FR-4	FR-5		G-7
Reinforcement		Glass fabric	Glass fabric	Glass fabric	Glass fabric	Glass fabric	Glass fabric	Glass fabric
Resin		Epoxy	epoxy	epoxy	epoxy	epoxy	epoxy	silicone
Mechanical properties								
Flexural strength flatwise perpendicular to lamination (at 20°C)	Mpa	560	490	545	560	540	340	160
Modulus of elasticity in flexure	Mpa	25x10 ³	25x10 ³	26x10 ³	24x10 ³	27x10 ³	24x10 ³	13x10 ³
Tensile strength	Mpa	430	370	400	430	420	300	125
Compressive strength perpendicular to lamination	Mpa	630	560	620	520	600	350	-
Notch impact strength parallel to lamination (Charpy)	Kj/m ²	80	90	100	80	90	33	25
Shearing strength parallel to lamination	Mpa	50	55	50	55	50	30	-
Dielectric properties								
Dielectric strength perpendicular to layers in oil 90°C	kV/mm	14,7	14,7	18	16,7	15,7	12	9
Breakdown voltage parallel to laminations	KV	60	60	60	60	60	60	60
Dissipation factor tg								
- at 50 Hz		0,015	0.01	0,04	0,01	0,01	0,04	0,07
- at 1 MHz		0,05	0,05	0,02	0,05	0,05	0,04	0,006
Permittivity at 1 MHz		5,5	5,5	5,5	5,5	5,5	5,5	3,7
Comparative tracking index (CTI)		200	180	180	200	180	600	450
Insulation resistance after immersion in water	MΩ	4x10 ⁵	3x10 ⁷	5x10 ⁴	27x10 ⁶	22x10 ⁵	5x10 ⁴	3x10 ⁶
Physical properties								
Density	g/cm ³	1,7 – 2,0	1,7 – 2,0	1,7 – 2,0	1,7 – 2,0	1,7 – 2,0	1,7 – 2,0	1,9 – 2,1
Temperature index (TI)		130	155	180	130	155	180	180
Water absorption (for thickness 3mm)	mg	10	10	9	10	10	10	40
Flammability (category)		-	-	-	V0	V0	V0 / HF	V0

Nota: Os dados contidos na tabela são fornecidos pelo respetivo fabricante/fornecedor.