

UNITIKA NYLON6

Type : Glass-fiber 45% reinforced nylon

Property	Standard	Unit	A 1030GFL45	
			Dry	Cond.

Mechanical properties

Tensile stress at yield	ISO 527-1 527-2	MPa		
Tensile stress at break			210	150
Tensile modulus		MPa	13600	8000
Tensile strain at yield		%		
Tensile strain at break			2.9	4.9
Flexural strength	ISO 178	MPa	325	220
Flexural modulus		MPa	12400	7600
Charpy impact strength	ISO 179-1	kJ/m ²	79	92
Charpy notched impact strength			15	23
Rockwell Hardness (R Scale)	ISO 2039		122	109

Thermal properties

Coefficient of linear thermal expansion	ISO 11359-2	10 ⁻⁵ /	2.3	
Deflection Temperature under load 1.8MPa	ISO 75-1 75-2		204	
Deflection Temperature under load 0.45MPa		217		

Electrical properties

Volume resistivity	IEC 60093	-m	2 × 10 ¹³	7 × 10 ¹¹
Electric strength Thickness: 1mm	IEC 60243-1	MV/m	42	40
Dielectric constant 10 ⁶ Hz	IEC 60250		3.3	
Dissipation factor 10 ⁶ Hz	IEC 60250		0.022	0.120
Comparative tracking Index	IEC 60112		550	

Other properties

Density	ISO 1183	g/cm ³	1.50	
Water absorption 23 in water 24h 23 /50%RH equilibrium	ISO 62	%	1.0	1.5
Mold shrinkage flow (Thickness : 3.2mm) transverse		%	0.1	0.3
Flammability	UL-94		0.86mmt HB	

Dry: dry-as-mold condition

Cond.: conditioned to equilibrium at 23 50%RH

The data listed here are typical of average lots and not guaranteed values .