

UNITIKA NYLON6

Type : Fast-cycling nylon

Property	Standard	Unit	A1030JR	
			Dry	Cond.

Mechanical properties

Tensile stress at yield	ISO 527-1 527-2	MPa	82	55
Tensile stress at break				
Tensile modulus		MPa	2900	1200
Tensile strain at yield		%	4.0	22
Tensile strain at break			30	150
Flexural strength	ISO 178	MPa	105	49
Flexural modulus		MPa	2800	1200
Charpy impact strength	ISO 179-1	kJ/m ²	NB	NB
Charpy notched impact strength			4	31
Rockwell Hardness (R Scale)	ISO 2039		120	85

Thermal properties

Coefficient of linear thermal expansion	ISO 11359-2	10 ⁻⁵ /	9.6	
Deflection Temperature under load 1.8MPa	ISO 75-1 75-2		61	
Deflection Temperature under load 0.45MPa			170	

Electrical properties

Volume resistivity	IEC 60093	-m	3 × 10 ¹³	8 × 10 ¹¹
Electric strength Thickness: 1mm	IEC 60243-1	MV/m	37	33
Dielectric constant 10 ⁶ Hz	IEC 60250		3.4	3.7
Dissipation factor 10 ⁶ Hz	IEC 60250		0.020	0.080
Comparative tracking Index	IEC 60112		>600	

Other properties

Density	ISO 1183	g/cm ³	1.14	
Water absorption 23 in water 24h 23 /50%RH equilibrium	ISO 62	%	1.8 2.8	
Mold shrinkage flow (Thickness: 3.2mm) transverse		%	0.9 1.1	
Flammability	UL-94		0.84mmt V-2	

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 .