

UNITIKA NYLON6

Type : Nano composite nylon

Property	Standard	Unit	M1030DH	
			Dry	Cond.

Mechanical properties

Tensile stress at yield	ISO 527-1 527-2	MPa		
Tensile stress at break			95	63
Tensile modulus		MPa	4300	2600
Tensile strain at yield		%		
Tensile strain at break			3.4	4.0
Flexural strength	ISO 178	MPa	155	66
Flexural modulus		MPa	4500	2500
Charpy impact strength	ISO 179-1	kJ/m ²	57	70
Charpy notched impact strength			4	7
Rockwell Hardness (R Scale)	ISO 2039		114	

Thermal properties

Coefficient of linear thermal expansion	ISO 11359-2	10 ⁻⁵ /	5.3	
Deflection Temperature under load 1.8MPa	ISO 75-1 75-2		140	
Deflection Temperature under load 0.45MPa			186	

Electrical properties

Volume resistivity	IEC 60093	-m	1 × 10 ¹³	
Electric strength Thickness: 1mm	IEC 60243-1	MV/m	42	
Dielectric constant 10 ⁶ Hz	IEC 60250		3.7	
Dissipation factor 10 ⁶ Hz	IEC 60250		0.019	
Comparative tracking Index	IEC 60112		475	

Other properties

Density	ISO 1183	g/cm ³	1.15	
Water absorption 23 in water 24h 23 /50%RH equilibrium	ISO 62	%	0.9 2.8	
Mold shrinkage flow (Thickness : 3.2mm) transverse		%	0.8 1.0	
Flammability	UL-94			

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 .