

PRODUCT SPECIFICATIONS



TUFNYL®

Resin Type: Polyamide 6

SGF22NATURAL

Common Features of Tufnyl® Polyamide resin include excellent mechanical and physical properties such as high mechanical strength, excellent balance of stiffness and toughness, good high temperature performance, good electrical properties, abrasion and chemical resistance.

Polyamide 6 22% glass fiber reinforced material for injection molding applications.

Property	Unit	Testing Method	Typical Data (DAM)
MECHANICAL PROPERTIES			
Tensile strength @ break	MPa	ISO 527	125
Elongation @ break	%	ISO 527	3
Flexural modulus	MPa	ISO 178	6000
Flexural strength	MPa	ISO 178	200
Rockwell hardness	R- Scale	ISO 2039-2	112
Rockwell hardness	M- Scale	ISO 2039-2	75
Izod notched impact strength (+23 C)	KJ/m ²	ISO 180	7
RHEOLOGICAL PROPERTIES			
Molding shrinkage (parallel) @ 2 mm	%	ISO 294-4	0.4-0.7
Molding shrinkage (normal) @ 2 mm	%	ISO 294-4	0.6-0.9
THERMAL PROPERTIES			
Heat deflection temp. @ 1.82 Mpa load	°C	ISO 75	190
Melting Point	°C	ISO 11357	220
ELECTRICAL PROPERTIES			
Volume resistivity	Ohm*cm	ASTM D 257	10 ¹²
Surface resistivity	Ohm	ASTM D 257	10 ¹¹
PHYSICAL PROPERTIES			
Density	kg/m ³	ISO 1183	1290
Moisture content	%	DSM	0.20 MAX
Filler content	%	DSM	22±2

PROCESSING GUIDELINES

Parameter	Unit	Typical Data
PRE-DRYING SETTINGS		
Pre-Drying Temperature	°C	Vacuum/Air Circulated Ovens at 100/80
Pre-Drying Time	Hours	2-4 hrs
It is recommended to pre-dry the material granules in vacuum / air circulated ovens using perforated trays.		

INJECTION MOLDING SETTINGS		
Mold Temperature	°C	80-100
Nozzle Temperature	°C	265-270
Melting Zone Temperature	°C	270-275
Compression Zone Temperature	°C	265-270
Feed Zone Temperature	°C	260-265

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