

TECHNICAL DATA SHEET

TECHNYL PROTECT C 52G3 V20 GY 7469 LP



Polyamide 6, 20% glass fiber reinforced, heat-aging stabilized, for injection moulding

General

Polymer type	PA6		
Certifications	RoHS EC 1907/2006 (REACH)	UL listed product	
Feature	heat-aging stabilized GWFI 960°C	UL 94 V2 GWIT 775°C	
Applications	electrical/electronic applications		
Colors available	grey		
Forms	pellets		
Processing technology	injection moulding		

Product identification

ISO 1043 abbreviation	PA6-GF20 FR(30)
ISO 16396 designation	PA6,GF20,MH,S14-060

Condition	Standard	Unit	Value
-----------	----------	------	-------

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm ³	1.32
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.5 - 0.7
Molding shrinkage, normal		ISO 294-4, 2577	%	0.6 - 0.8

	Condition	Standard	Unit	Value
Mechanical properties				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	6000 / 2900
Stress at break	5 mm/min	ISO 527-1/-2	MPa	80 / 50
Strain at break	5 mm/min	ISO 527-1/-2	%	3.8 / 9
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	5500 / 2900
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	135 / 75
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	35 / 90
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	3.5 / 8.5
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	30 / 85
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	3.5 / 9

*: **conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	205
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	170
Vicat softening temperature	50°C/h - 50N	ISO 306	°C	205

Condition	Standard	Unit	Value
-----------	----------	------	-------

Burning behaviour

UL Yellow Card availability 1	Click here to have access to the UL Yellow Card availability 1 -> E170540-103945148			
Flammability, 0.75 mm	0.75 mm	UL 94		V2
Flammability, 1.5 mm	1.5 mm	UL 94		V2
Flammability, 3.0 mm	3.0 mm	UL 94		V2
Glow-wire flammability index, GWFI, 3.0 mm			°C	960
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	960
Glow-wire ignition temperature, GWIT	1-3 mm	IEC 60695-2-13	°C	800
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Condition	Standard	Unit	Value
-----------	----------	------	-------

Electrical properties

Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E13
Comparative tracking index	Solution A	IEC 60112	V	600.0
CTI performance level category		Sol A		PLC 0

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)			
Suggested max moisture	0.2 %			
Recommended melt temperature	240 - 260 °C			
Recommended mould temperature	70 - 90 °C			

Injection notes

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C. Recommended time 2-4h.