

TECHNICAL DATA SHEET

TECHNYL PROTECT C 52G1 V30 GY 2408CF
(Previously TECHNYL C 52G1 V30 GREY 2408CF)

TECHNYL PROTECT C 52G1 V30 GY 2408CF is a polyamide 6 based on a non-phosphorous and Non-halogenated flame retardant system, reinforced with 30% of glass fiber, heat stabilized, for injection moulding. This flame retardant grade with excellent moulding and electrical performance.

General

Feature	Arc resistant halogen free flame retardant	UV-laser markable
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	UL-Yellow Card	EC 1907/2006 (REACH)
Applications	Electrical/Electronic Applications	
Colors available	Grey	
Forms	Pellets	

Product identification

ISO 1043 abbreviation	PA6-GF30 FR(30)
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Condition	Standard	Unit	Value
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Physical properties

Density		ISO 1183	g/cm ³	1.38
Water absorption	24 hr, 23°C	ISO 62	%	1

Mechanical properties

				dam / cond.*
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	7400 / -
Stress at break		ISO 527-1/-2	MPa	90 / -
Strain at break		ISO 527-1/-2	%	2 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	35 / -

Thermal properties


Melting temperature, 10°C/min		ISO 11357-1	°C	220
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	215
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	190

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Electrical properties				
Comparative tracking index	Solution A	IEC 60112	V	500
CTI performance level category		Sol A		PLC 1

Burning behaviour

UL Yellow Card availability 	Click here to have access to the UL Yellow Card → QMFZ2.E44716			
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, 1.5 mm	1.5 mm	IEC 60695-2-12	°C	960
Glow-wire flammability index, GWFI, 3.0 mm	3.0 mm	IEC 60695-2-12	°C	960

*: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	230 - 235 °C
Middle temperature	235 - 240 °C
Front temperature	240 - 250 °C
Recommended mould temperature	60 - 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.

Injection advice

All reinforced, flame retardant compounds generate some level of abrasion/corrosion to the steel processing equipment. These issues may be magnified by using incorrect processing conditions (temperatures, residence time, moisture level ...) during the moulding process. Therefore, Domo recommends you adhere to the processing conditions detailed in this technical data sheet. For equipment that comes into contact with molten flame retardant compounds, Domo advises you to use a steel with high chromium and high carbon content (having a minimum concentration of 16% chromium) to prevent corrosion and abrasion. For the correct reference of steel associated to flame retardant compounds' processing, please refer to your equipment manufacturers. In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered.

Disclaimer

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