

TECHNICAL DATA SHEET

TECHNYL PROTECT C 60G1 V30 NC

(Previously DOMAMID FR 6G30V0E NC)

Polyamide 6, 30% glass fiber reinforced, halogen and red phosphorus free flame retardant, heat-aging stabilized, for injection moulding, natural color

General

Feature	UL VO Heat-aging stabilized	Halogen and red phosphorus free flame retardant
Polymer type	PA6 (Polyamide 6)	
Processing technology	Injection molding	
Certification	RoHS	UL-Yellow Card

Product identification

ISO 1043 abbreviation	PA6-GF30 FR(40)
ISO 16396 designation	PA6,GF30FR(40),M1H,S14-100

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

Physical properties

Density		ISO 1183	g/cm ³	1.41
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.2 - 0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	0.5 - 0.7
Viscosity number	96% H ₂ SO ₄	ISO 307	cm ³ /g	145

Mechanical properties

dam / cond.*

Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10500 / 6500
Stress at break	5 mm/min	ISO 527-1/-2	MPa	145 / 95
Strain at break	5 mm/min	ISO 527-1/-2	%	3 / 5
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9900 / 6100
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	215 / 140
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m ²	55 / 60
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m ²	9 / 12
Izod impact strength, +23°C	+23°C	ISO 180/1U	kJ/m ²	55 / 60
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	9 / 11

TECHNYL® PROTECT

Flame retardants

DOMO
caring is our formula

TECHNICAL DATA SHEET

TECHNYL PROTECT C 60G1 V30 NC

Condition	Standard	Unit	Value
Thermal properties			
Melting temperature, 10°C/min	ISO 11357-1	°C	221
Temp. of deflection under load, 0.45 MPa	ISO 75	°C	215
Temp. of deflection under load, 1.80 MPa	ISO 75	°C	205
Vicat softening temperature	ISO 306	°C	210

Electrical properties

Volume resistivity	IEC 62631-3-1	ohm.m	1E+016
Surface resistivity	IEC 62631-3-1	ohm	1E+014
Comparative tracking index	IEC 60112	V	600
CTI performance level category	Sol A		PLC 0

Burning behaviour

UL Yellow Card availability 	Click here to have access to the UL Yellow Card → E170540-103930220			
Flammability, 0.75 mm	0.75 mm	UL 94		V0
Flammability, 1.5 mm	1.5 mm	UL 94		V0
Flammability, 3.0 mm	3.0 mm	UL 94		V0
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	775
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		< 100 mm/min

Test run at 23°C if not differently specified, DAM state (dry as moulded).

*: conditioned according to ISO 1110

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Recommended melt temperature	240 - 270 °C
Recommended mould temperature	80 - 100 °C

These parameters are typical of the product but should be related to the type of machinery used and to the type of moulded part.

Disclaimer

The information provided in this documentation corresponds to our technical knowledge at the date of its publication and do not constitute a specification. This information may be subject to revision at our discretion. Domo cannot anticipate all conditions under which this information and our products of other manufacturers in combination with our products may be used. Domo accepts no responsibility for results obtained by the application of this information or for the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each product or product combination for their own purposes. Unless otherwise agreed in writing, Domo sells the product without warranties. Buyers and users assume all responsibility and liability for loss or damage arising from handling and use of our products, whether used alone or in combination with other products. Unless specifically indicated, the grades mentioned are not suitable for applications in the pharmaceutical/medical sector.