TECHNYL®

DOMO caring is our formula

EXPERIMENTAL DATASHEET

TECHNYL XA 1722 ORANGE 2702

TECHNYL XA 1722 Orange 2702 is a polyamide PA 66, reinforced with 30% of glass fiber, self-coloured in Orange RAL 2003 & is suitable for Injection-moulding. This grade offers a unique Polyamide 66 solution for E-Mobility applications requiring Orange color as a functional property during all application lifetime. Thanks to a specific combination of coloring additives & thermal stabilizers, this grade exhibits an undisputable high color retention under thermal stress with a Polyamide based material. It provides consequently all benefits associated to a Polyamide compound, superior electrical insulation performances & high mechanical properties. It is furthermore suitable for UV laser-marking.

General

Certifications	RoHS	EC 1907/2006 (REACH)
Polymer type	PA66	
Feature	lasermarkable organic heat stabilized	electro-friendly
Applications	automotive applications e-mobility	connectors
Colors available	orange	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66-GF30

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.36
Humidity absorption	T=23°C, 50% RH	ISO 62	%	>=1.9
Water absorption	24 hr, 23°C	ISO 62	%	0.8
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.4
Molding shrinkage, normal		ISO 294-4, 2577	%	1.1

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	10000 / 7000
Stress at break		ISO 527-1/-2	MPa	190 / 110
Strain at break		ISO 527-1/-2	%	3 / 6
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	9000 / -
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	250 / -
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	70 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	10 / -

: conditioned according to ISO 1110

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	262
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	260
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	250

	Condition	Standard	Unit	Value
Burning behaviour				
Flammability, 0.75 mm	0.75 mm	UL 94		HB
Flammability, 1.5 mm	1.5 mm	UL 94		HB
Flammability, 3.0 mm	3.0 mm	UL 94		HB

	Condition	Standard	Unit	Value
Electrical properties				
Comparative tracking index	Solution A	IEC 60112	V	600.0
CTI performance level category		Sol A		PLC 0

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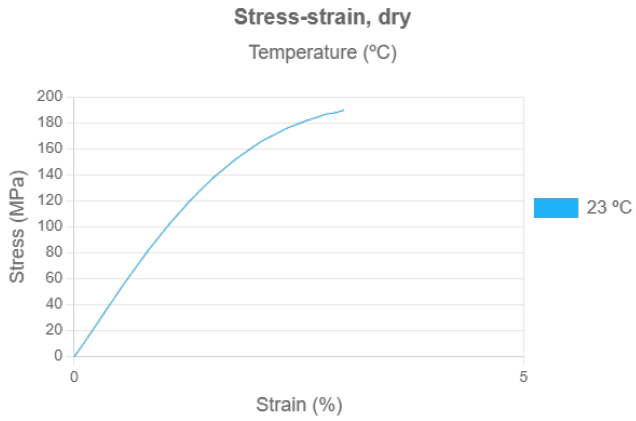
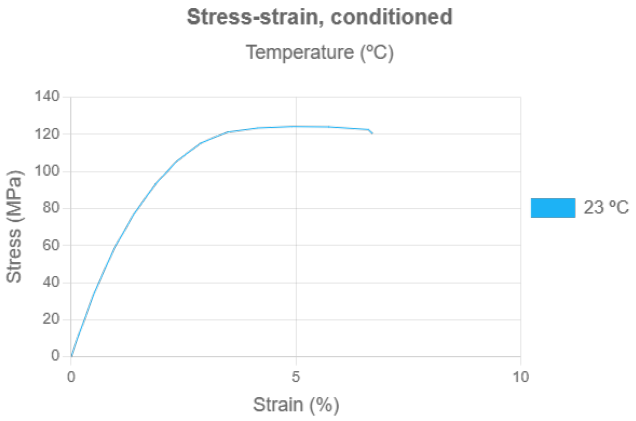
Processing conditions

Drying temperature/time	80 °C
Suggested max moisture	0.2 %
Rear temperature	270 - 275 °C
Middle temperature	275 - 280 °C
Front temperature	280 - 285 °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.

Injection advice

For reinforced polyamides, Domo recommends the use of steel with a high content of carbon, and purified for polishing, to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (DIN Norm). In the case of high requirements on surface quality a mould temperature of up to 120°C can be considered.,The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design.