TECHNYL®

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TECHNICAL DATA SHEET

TECHNYL PROTECT A 50X1 GY 2610 LP

TECHNYL A 50X1 GY 2610 LP is an unreinforced blend of polyamide 66 and 6 based on a non-phosphorous and non-halogenated flame retardant system, heat stabilized, for injection moulding. This flame retardant grade, UL94 V0 at 0.4mm, offers excellent filling qualities together with good stiffness.

General

Certifications	UL listed product	EN 45545
Polymer type	PA66	
Feature	moulding release agent	halogen free flame retardant
Applications	connectors	electrical/electronic applications
Colors available	grey	
Forms	pellets	
Processing technology	injection moulding	

Product identification

ISO 1043 abbreviation	PA66+PA6 FR(30)
ISO 16396 designation	PA66,0FR(30)0,M1,S14-040

Physical properties

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm³	1.16
Humidity absorption	T=23°C, 50% RH	ISO 62	%	2.7
Water absorption	24 hr, 23°C	ISO 62	%	1.0 - 1.1
Molding shrinkage, parallel		ISO 294-4, 2577	%	0.95 - 1.05
Molding shrinkage, normal		ISO 294-4, 2577	%	0.7 - 0.8

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	Condition	Standard	Unit	Value
Mechanical properties				**dam / cond.***
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3700 / 1300
Stress at break		ISO 527-1/-2	MPa	70 / 50
Strain at break		ISO 527-1/-2	%	15 / 150
Yield stress		ISO 527-1/-2	MPa	75 / 50
Yield strain		ISO 527-1/-2	%	10 / -
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	3200 / 1100
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	105 / 50
Charpy impact strength, +23°C	+23°C	ISO 179/1eU	kJ/m²	85 / -
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m²	4.5 / 16

***: conditioned according to ISO 1110**

	Condition	Standard	Unit	Value
Thermal properties				
Melting temperature, 10°C/min		ISO 11357-1	°C	257
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	200
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	60

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Burning behaviour

	Condition	Standard	Unit	Value
UL Yellow Card availability 1	**Click here to have access to the UL Yellow Card availability 1 -> QMFZ2.E44716**			
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			°C	960
Glow-wire flammability index, GWFI	1-3 mm	IEC 60695-2-12	°C	960
Glow-wire ignition temperature, GWIT, 0.40 mm	0.40 mm	IEC 60695-2-13	°C	960
Glow-wire ignition temperature, GWIT, 0.75 mm	0.75 mm	IEC 60695-2-13	°C	930
Glow-wire ignition temperature, GWIT, 1.5 mm	1.5 mm	IEC 60695-2-13	°C	755
Glow-wire ignition temperature, GWIT, 3.0 mm	3.0 mm	IEC 60695-2-13	°C	750
Oxygen index			%	33.0
Burning rate, FMVSS, Thickness 1 mm		FMVSS 302		<100

Electrical properties

	Condition	Standard	Unit	Value
Volume resistivity		IEC 62631-3-1	ohm.m	1.0E13
Surface resistivity		IEC 62631-3-1	ohm	1.0E15
Comparative tracking index	Solution A	IEC 60112	V	600.0
CTI performance level category		Sol A		PLC 0
Dielectric strength	1 mm	IEC 60243-1	kV/mm	34.0

Processing conditions

Drying temperature/time	75-85°C / 2-4h (with dew point of dried air < -30 °C)
Suggested max moisture	0.12 %
Rear temperature	260 - 270 °C
Middle temperature	265 - 275 °C

Processing conditions

Front temperature	265 - 275 °C
Recommended mould temperature	60 - 80 °C