

TROGAMID® T BX7304

Polyamide 6/3T Copolymer
Evonik Industries AG

Message:

TROGAMID® T and BX consist of terephthalic acid and 2,2,4- /2,4,4-trimethyl hexamethylene diamine, a chemical composition that is responsible for their amorphous structure. This makes TROGAMID® T transparent in contrast to the semi-crystalline high-performance plastics of High Performance Polymers. The amorphous structure also results in low molding shrinkage and low tendency to warp. In addition to the basic products, a range of specially equipped compounds is also available. The product line fits a wide range of applications and satisfies many requirement profiles.

TROGAMID® BX7304

Permanently transparent polymer blend consisting of an amorphous and semi-crystalline polyamide for injection molding; improved stress-cracking resistance, low water absorption.

General Information			
Features	Amorphous		
	Copolymer		
	Good Chemical Resistance		
	Good Electrical Properties		
	Good Thermal Stability		
	High Viscosity		
	Low Shrinkage		
	Low to No Water Absorption		
	Low Warpage		
	Semi Crystalline		
Uses	Electrical/Electronic Applications		
	Filters		
	Gears		
	Machine/Mechanical Parts		
Appearance	Clear/Transparent		
	Colors Available		
	Natural Color		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.08	g/cm³	ISO 1183
Viscosity Number	160	cm³/g	ISO 307
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D)	84		ISO 868
Ball Indentation Hardness	130	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method

Tensile Modulus	2200	MPa	ISO 527-2
Tensile Stress (Yield)	82.0	MPa	ISO 527-2/50
Tensile Strain (Yield)	6.0	%	ISO 527-2/50
Nominal Tensile Strain at Break	> 50	%	ISO 527-2/50
Tensile Creep Modulus			ISO 899-1
1 hr	2200	MPa	
1000 hr	800	MPa	
Flexural Modulus	2700	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C, Complete Break	8.0	kJ/m ²	
23°C, Complete Break	9.0	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		
0°C	No Break		
23°C	No Break		
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	80.0	°C	ISO 75-2/B
1.8 MPa, Unannealed	75.0	°C	ISO 75-2/A
Glass Transition Temperature ¹	93.0	°C	ISO 11357-2
Vicat Softening Temperature	99.0	°C	ISO 306/B
CLTE			ISO 11359-2
Flow : 23 to 80°C	7.0E-5	cm/cm/°C	
Transverse : 23 to 80°C	7.0E-5	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohms · cm	IEC 60093
Electric Strength	19	kV/mm	IEC 60243-1
Dissipation Factor (23°C, 1 MHz)	0.043		IEC 60250
Comparative Tracking Index			IEC 60112
-- ²	575	V	
Solution A	600	V	
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.800 mm	HB		
1.60 mm	HB		
Glow Wire Flammability Index (1.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (1.00 mm)	930	°C	IEC 60695-2-13
NOTE			
1.	10 K/min		
2.	100 drops value		

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