

TechnoMid PA6 S SZ

Polyamide 6
TechnoCompound GmbH

Message:

High mechanical strength and stiffness
High thermal stability
High toughness at low temperatures
Excellent sliding friction behavior
Optimal flow characteristics for challenging applications
Suitable for low-warpage injection molding parts
Also "cross-linkable" available
Typical Applications
Automotive: Radiator grills, exterior door handles, door sills, door-mirror housings, wheel covers, steering wheels, fastening clips, gearshift-lever housings, shift links, headlamp housings, power and fuse boxes, front-End-Modules, bumper stiffener, air intake modules, engine covers "Beauty-Cover", valve bonnet and cylinder head covers, chain guides, toothed belt covers, ventilation and cooling systems...
Household: Chair frames, furniture casters, craft toll shafts...
Sanitation: Handles, fittings, fixtures and fans
Plumbing: Wall dowels , fasteners, clamps for cables and pipes

General Information			
Features	Low warpage		
	Low Temperature Flexibility		
	Rigidity, high		
	High strength		
	Good liquidity		
	Thermal stability, good		
Uses	Handle		
	Pipe components		
	Household goods		
	Fasteners		
	Accessories		
	Application in Automobile Field		
	Shell		
	Bathroom products		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.10	g/cm ³	ISO 1183
Molding Shrinkage ¹			ISO 294-4
Transverse flow	1.3	%	ISO 294-4
Flow	1.0	%	ISO 294-4
Water Absorption			ISO 62
Saturated, 23°C	9.0	%	ISO 62

Equilibrium, 23°C, 50% RH	3.0	%	ISO 62
Viscosity Number	150	cm ³ /g	ISO 307
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness ²	110	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2500	MPa	ISO 527-2/1
Tensile Stress			
Yield	70.0	MPa	ISO 527-2/50
Fracture	45.0	MPa	ISO 527-2/5
Tensile Strain			
Yield	4.5	%	ISO 527-2/50
Fracture	35	%	ISO 527-2/5
Flexural Modulus ³	2300	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	6.0	kJ/m ²	ISO 179/1eA
23°C	10	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		ISO 179/1eU
23°C	No Break		ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	165	°C	ISO 75-2/B
1.8 MPa, not annealed	60.0	°C	ISO 75-2/A
Vicat Softening Temperature	190	°C	ISO 306/B120
Melting Temperature ⁴	220	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 80°C	7.0E-5 - 1.0E-4	cm/cm/°C	ISO 11359-2
Lateral: 23 to 80°C	1.0E-4 - 1.3E-4	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohms · cm	IEC 60093
Dielectric Strength (1.00 mm)	33	kV/mm	IEC 60243-1
Relative Permittivity (1 MHz)	3.50		IEC 60250
Comparative Tracking Index (Solution A)	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.8 mm)	HB		UL 94
NOTE			
1.	260°C / WZ 80°C, 600 bar		
2.	358 N		
3.	2.0 mm/min		
4.	10°C/min		

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