

Datasheet

RS PRO Cast Nylon Black Rod 80mm Diameter x 500mm long

Stock No: 193-5323



Specifications:

Chemical designation	PA 6 C (Cast polyamide 6)
Colour	Black
Density	1.15 g/cm ³
Filler	molybdenum disulphide (MoS ₂)

Technical Specifications:

Mechanical Properties	Parameter	Value	Unit	Standard/Norm
Modulus of elasticity (tensile test)	1mm/min	3200	MPa	DIN EN ISO 527-2
Tensile strength	50mm/min	82	MPa	DIN EN ISO 527-2
Tensile strength at yield	50mm/min	80	MPa	DIN EN ISO 527-2
Elongation at yield	50mm/min	4	%	DIN EN ISO 527-2
Elongation at break	50mm/min	55	%	DIN EN ISO 527-2
Flexural strength	2mm/min, 10N	102	MPa	DIN EN ISO 178
Modulus of elasticity (flexural test)	2mm/min, 10N	3000	MPa	DIN EN ISO 178
Compressive strength	1% / 2%; 5mm/min, 10N	22 / 38	MPa	EN ISO 604
Compression modulus	5mm/min, 10N	2800	MPa	EN ISO 604
Impact strength (Charpy)	max. 7.5J	n.b.	kJ/m ²	DIN EN ISO 179-1eU
Notched impact strength (Charpy)	max. 7.5J	4	kJ/m ²	DIN EN ISO 179-1eA
Ball indentation hardness		170	MPa	ISO 2039-1

Thermal Properties	Parameter	Value	Unit	Standard/Norm
Glass transition temperature		43	°C	DIN 53765
Melting temperature		217	°C	DIN 53765
Service temperature	Short term	170	°C	
Service temperature	Long term	100	°C	
Thermal expansion (CLTE)	23-60°C, long	11	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2
Thermal expansion (CLTE)	23-100°C, long	11	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2
Specific heat		1.6	J/(g*K)	ISO 22007-4:2008
Thermal conductivity		0.33	W/(K*m)	ISO 22007-4:2008

Electrical Properties	Parameter	Value	Unit	Standard/Norm
Specific surface resistance	Silver electrode, 23°C, 12% r.h.	10 ¹⁴	W	DIN IEC 60093
Specific volume resistance	Silver electrode, 23°C, 12% r.h.	10 ¹⁴	W*cm	DIN IEC 60093

Other Properties	Parameter	Value	Unit	Standard/Norm
Water absorption	24h / 96h (23 °C)	0.2 / 0.5	%	DIN EN ISO 62
Resistance to hot water / bases		(+)		
Resistance to weathering		(+)		
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10



Features & Benefits:

- **Good damping**
- **Good slide and wear properties**
- **High Strength**
- **Good wear properties**
- **High toughness**
- **Resistant to many oils, greases and fuels**

Compliances:

- **ISO 9001 Approved**
- **ROHS**
- **REACH**