

**Datasheet**

# RS PRO TORLON 4301 Black Rod 1/2" Diameter x 300mm long

Stock No: 257-7120



## Specifications:

Chemical designation	PAI (Polyamide-imide)
Colour	Black
Density	1.45 g/cm <sup>3</sup>
Filler(s)	Graphite + PTFE

## Technical Specifications:

Mechanical properties	Parameter	Value	Unit	Standard/Norm
Modulus of elasticity (tensile test)		5800	MPa	527
Tensile stress at break		80	MPa	527
Tensile strain at break		5	%	527
Compressive stress at 1% nom strain		31	MPa	604
Compressive strength at 2% nom strain		58	MPa	604
Notched impact strength (Charpy)		4	kJ/m <sup>2</sup>	179/1eA
Ball indentation hardness		200	N/mm <sup>2</sup>	2039-1

Thermal properties	Parameter	Value	Unit	Standard/Norm
Glass transition temperature		280	°C	-
Melting temperature		NA	°C	-
Service temperature	short term	270	°C	-
Service temperature	long term	250	°C	-
Thermal expansion (CLTE)	23-100°C,	25.10 <sup>-6</sup>	m/(m.K)	-
Thermal expansion (CLTE)	23-150°C, long.	25.10 <sup>-6</sup>	m/(m.K)	-
Thermal conductivity at 23°C		0.54	W/(K*m)	-

Electrical properties	Parameter	Value	Unit	Standard/Norm
Surface resistance		>10 <sup>13</sup>	Ohm	(60093)
Specific volume resistance		>10 <sup>13</sup>	Ohm*cm	(60093)

Other properties	Parameter	Value	Unit	Standard/Norm
Water absorption	24h / 96h (23°C)	26	mg	62
Water absorption	saturation (23°C)	3.8	%	-
Flammability		V0		UL94



### Features & Benefits:

- Chemical resistant
- Creep resistant
- Flame retardant
- High heat resistance
- High temperature strength
- Low friction
- Self lubricating
- Semi Conductive
- Wear resistant

### Compliances:

- ISO 9001 Approved
- ROHS
- REACH