

## Multiplast Pa6 + MoS2

Multiplast Pa6 + MoS2 is Multiplast Pa6 with a MoS2 filling, with:

- Extreme toughness
- Extreme impact resistance
- Good chemical resistance
- Good UV resistance
- Good surface hardness
- Good machining properties
- Good dimension stability

Properties	Units		
Modulus of elasticity (tensile test)	MPa	3300	
Tensile strength	MPa	84	
Tensile strength at yield	MPa	82	
Elongation at yield	%	5	
Elongation at break	%	37	
Modulus of elasticity (flexural test)	MPa	3100	
Flexural strength	MPa	110	
Compression modulus	MPa	2900	
Compressive strength (1% / 2%)	MPa	17 / 32	
Impact strength (Charpy)	kJ / m <sup>2</sup>	-	
Notched impact strength (Charpy)	kJ / m <sup>2</sup>	5	
Ball indentation hardness	MPa	160	
Glass transition temperature	°C	51	
Melting temperature	°C	220	
Service temperature	short term	°C	160
	long term	°C	100
Thermal expansion	23 °C – 60 °C	10 <sup>-5</sup> K <sup>-1</sup>	8
	23 °C – 100 °C	10 <sup>-5</sup> K <sup>-1</sup>	8
Specific heat	J / (g x K)	1,6	
Thermal conductivity	W / m K	0,37	

Properties	Units	
Specific surface resistance	$\Omega$	$10^{14}$
Specific volume resistance	$\Omega \times \text{cm}$	$10^{14}$
Dielectric strength	kV / mm	30
Resistance to tracking (CTI)	V	600
Water absorption 24 h / 96 h (@ 23°C)	%	0,3 / 0,6
Resistance to hot water / bases	-	Limited resistance
Resistance to weathering	-	Limited resistance
Flammability	UL94	HB
Density	g/cm <sup>3</sup>	1,14
Colour	-	Black

**Availability:**

Sheet:            Size:                            500 x 3000 mm (smaller sizes are possible)  
                       Thickness:                        6 - 50 mm

Rod:                Length:                            3000 mm (shorter lengths are possible)  
                       Diameter                            10 - 100 mm

Cut pieces:        On request

Parts:                Finished products according to drawing