

QUADRANT EPP PRODUCT DATA SHEET

ERTALON® 6SA

June 2001

Nylon 6 (PA 6)

ERTALON® 6SA is a partially crystalline polyamide with good strength, toughness and resilience. This is particularly important under impact loading or at low temperatures.

- High impact strength
- High mechanical damping
- Good alkaline resistance (up to pH 12)
- High strength / stiffness
- Good fatigue resistance
- Good UV resistance
- Excellent wear resistance
- Continuous temperature 70°C (max. 160°C)

Common applications: Gears; Bearings; Rollers; Wheels; Cams; Nuts; Valve seats; Pulleys; Gaskets; Electrical insulators.

Delivery Programme

Rod 1m & 3m long			
Diameter (mm):	5 (Min)	320 (Max)	
Coil			
Thickness (mm):	0.5 (Min)	1.5 (Max)	
Width:	1m		
Sheet 1m wide			
Thickness (mm):	1 (Min)	8 (Max)	
Length:	1m & 2m		
Plate 610mm wide			
Thickness (mm):	8 (Min)	100 (Max)	
Length:	1m & 3m		
Tube 1m & 3m long			
O.D. (mm):	20 (Min)	100 (Max)	
I.D. (mm):	10 (Min)	80 (Max)	

Distributor

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Technical Specification

Property	ISO Methods	Units	ERTALON® 6SA
Colour	-	-	White
Density	1183	g/cm ³	1.14
Water absorption			
Saturation in air (23°C / 50% RH)	-	%	2.60
Saturation in water (23°C)	-	%	9.00
Tensile strength* ¹	527	N/mm ²	76
Tensile modulus of elasticity* ¹	527	N/mm ²	3250
Elongation at break* ¹	527	%	>50
Impact - Charpy* ¹	179/1eU	kJ/m ²	no break
Impact - Izod notched* ¹	180/2A	kJ/m ²	5.5
Hardness	Rockwell	-	M85
	Shore D	-	-
Melt point	-	°C	220
Max allowable service temp in air			
for short periods	-	°C	160
continuously for 20,000hrs	-	°C	70
Linear thermal expansion coefficient	-	K ⁻¹ x 10 ⁻⁵	9.0
Thermal conductivity	-	W/(K.m)	0.28
Flammability* ² (6mm thickness)	-	-	HB
Volume resistivity* ¹	IEC93	Ohm.cm	>10 ¹⁴
Dielectric strength* ¹	IEC243	kV/mm	25
Outside applications - UV resistance	-	-	A/B
Acids - strong (pH < 3)	-	-	C
Alkalis - strong (pH > 11)	-	-	B/C
Chlorinated hydrocarbons	-	-	A/B
Hot water	-	-	B

'A' - Acceptable service; 'B' - Limited service; 'C' - Unacceptable.

*¹ Measured on dry test specimens (where applicable)

*² Tests completed by Quadrant EPP, using UL test methods

Not all material sizes shown within the delivery programme section of this data sheet are available as standard. Please contact Quadrant EPP UK Ltd for further details.

The data shown are typical values and are not intended to represent specifications. Their aim is to guide the user toward a material choice.