

Arkema Group Orgalloy® RS 6000 Polyamide 6 Alloy

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Unreinforced

Material Notes:

Polyamide Alloy, Rigid grade, Nylon 6 based Tubes / Mandrels / Profiles / Cables Information provided by Arkema Group

Order this product through the following link:

http://www.lookpolymers.com/polymer_Arkema-Group-Orgalloy-RS-6000-Polyamide-6-Alloy.php

Physical Properties	Metric	English	Comments
Density	1.03 g/cc	0.0372 lb/in ³	ISO R1183
Water Absorption	1.0 %	1.0 %	23°C / 24 hrs; ISO 62
Moisture Absorption at Equilibrium	1.3 %	1.3 %	23°C / 50% RH; ISO 62
	3.3 %	3.3 %	in 23°C water; ISO 62
Melt Flow	8.0 g/10 min @Load 2.16 kg, Temperature 235 °C	8.0 g/10 min @Load 4.76 lb, Temperature 455 °F	after drying; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	76	76	ISO 868
Tensile Strength, Ultimate	50.0 MPa	7250 psi	ISO R527
Tensile Strength, Yield	50.0 MPa	7250 psi	ISO R527
Elongation at Break	220 %	220 %	ISO R527
Elongation at Yield	3.4 %	3.4 %	ISO R527
Modulus of Elasticity	2.30 GPa	334 ksi	ISO R527
Flexural Strength	63.0 MPa	9140 psi	After conditioning at 23°C and 50% RH; ISO 178
	70.0 MPa	10200 psi	Dry; ISO 178
Flexural Modulus	2.00 GPa	290 ksi	After conditioning at 23°C and 50% RH; ISO 178
	2.20 GPa	319 ksi	Dry; ISO 178
Charpy Impact, Notched	2.00 J/cm ²	9.52 ft-lb/in ²	After conditioning at 23°C/50%RH; ISO 179/Af
	1.20 J/cm ² @Temperature -20.0 °C	5.71 ft-lb/in ² @Temperature -4.00 °F	Dry; ISO 179/Af

Mechanical Properties	1.40 J/cm ² Metric	6.66 ft-lb/in ² English	After conditioning at 23°C/50%RH; ISO 179/AF
	@Temperature -20.0 °C	@Temperature -4.00 °F	
	1.60 J/cm ²	7.61 ft-lb/in ²	Dry; ISO 179/AF
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Creep Modulus, 1 hour	2030 MPa	294000 psi	ISO 899-1

Thermal Properties	Metric	English	Comments
CTE, linear	93.0 µm/m-°C	51.7 µin/in-°F	TMS2 Perkin Elmer
	@Temperature 20.0 - 60.0 °C	@Temperature 68.0 - 140 °F	
CTE, linear, Transverse to Flow	130 µm/m-°C	72.2 µin/in-°F	TMS2 Perkin Elmer
	@Temperature 20.0 - 60.0 °C	@Temperature 68.0 - 140 °F	
Melting Point	220 °C	428 °F	ISO R1218
Deflection Temperature at 0.46 MPa (66 psi)	130 °C	266 °F	ISO R75
Deflection Temperature at 1.8 MPa (264 psi)	75.0 °C	167 °F	ISO R75
Vicat Softening Point	130 °C	266 °F	50 N - B method; ISO 306
	195 °C	383 °F	10 N - A method; ISO 306
Flammability, UL94	HB	HB	
Flame Spread	17 mm/min	0.67 in/min	FMVSS 302

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.60e+15 ohm-cm	1.60e+15 ohm-cm	ASTM D257
Surface Resistance	4.80e+15 ohm	4.80e+15 ohm	ASTM D257
Dielectric Strength	38.0 kV/mm	965 kV/in	ASTM D149
	@Thickness 1.00 mm	@Thickness 0.0394 in	
Dissipation Factor	0.025	0.025	NFC 26 230
	@Frequency 100000 Hz	@Frequency 100000 Hz	
	0.062	0.062	NFC 26 230
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.065	0.065	NFC 26 230

Electrical Properties	@Frequency 1000 Hz Metric	@Frequency 1000 Hz English	Comments
Comparative Tracking Index	>= 600 V	>= 600 V	NFC 26 220

Descriptive Properties	Value	Comments
Automotive classification	E-3	FMVSS 302

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com
Email : sales@lookpolymers.com
Tel : +86 021-51131842
Mobile : +86 13061808058
Skype : lookpolymers
Address : United North Road 215,Fengxian District, Shanghai City,China