

Arkema Group Orgalloy® R 60 ES Polyamide Alloy

Category : Polymer , Thermoplastic , Nylon

Material Notes:

Polyamide Alloy, Film and Packaging Information provided by Arkema Group

Order this product through the following link:

http://www.lookpolymers.com/polymer_Arkema-Group-Orgalloy-R-60-ES-Polyamide-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 | 2.0 g/10 min @Load 2.16 kg, Temperature 235 °C | 2.0 g/10 min @Load 4.76 lb, Temperature 455 °F | after drying; ISO 1133 |

| Mechanical Properties | Metric | English | Comments |
|----------------------------|--|--|--|
| Hardness, Shore D | 75 | 75 | 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 | 2.01 GPa | 292 ksi | ISO R527 |
| Flexural Strength | 63.0 MPa | 9140 psi | After conditioning at 23°C and 50% RH; ISO 178 |
| | 73.0 MPa | 10600 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 |
| | 1.60 J/cm ² @Temperature 23.0 °C | 7.61 ft-lb/in ² @Temperature 73.4 °F | Dry; ISO 179/Af |

| Mechanical Properties | Metric | English | Comments |
|-------------------------------|------------------------|----------------------------|---|
| | 12.0 J/cm ² | 57.1 ft-lb/in ² | |
| | @Temperature -20.0 °C | @Temperature -4.00 °F | |
| | 14.0 J/cm ² | 66.6 ft-lb/in ² | After conditioning at 23°C/50%RH; ISO 179/Af |
| | @Temperature -20.0 °C | @Temperature -4.00 °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 |
| | 215 °C | 419 °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