

## Arkema Group Orgalloy® RS 6010 Polyamide 6 Alloy 10% Glass Fiber reinforced

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , 10% Glass Fiber Filled

### Material Notes:

Polyamide Alloy, Rigid grade, Nylon 6 based Molding of Engineering Parts Information provided by Arkema Group

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Arkema-Group-Orgalloy-RS-6010-Polyamide-6-Alloy-10-Glass-Fiber-reinforced.php](http://www.lookpolymers.com/polymer_Arkema-Group-Orgalloy-RS-6010-Polyamide-6-Alloy-10-Glass-Fiber-reinforced.php)

| Physical Properties                | Metric   | English  | Comments               |
|------------------------------------|--|--|------------------------|
| Density                            | 1.12 g/cc  | 0.0405 lb/in <sup>3</sup>                            | ISO R1183              |
| Water Absorption                   | 0.80 %   | 0.80 %   | 23°C / 24 hrs; ISO 62  |
| Moisture Absorption at Equilibrium | 1.2 %  | 1.2 %  | 23°C / 50% RH; ISO 62  |
|                                    | 2.9 %  | 2.9 %  | in 23°C water; ISO 62  |
| Melt Flow                          | 6.0 g/10 min<br>@Load 2.16 kg,<br>Temperature 235 °C | 6.0 g/10 min<br>@Load 4.76 lb,<br>Temperature 455 °F | after drying; ISO 1133 |

| Mechanical Properties      | Metric   | English  | Comments                                       |
|----------------------------|--|--|--|
| Hardness, Shore D          | 81   | 81   | ISO 868  |
| Tensile Strength, Ultimate | 80.0 MPa                                       | 11600 psi  | ISO R527                                       |
| Tensile Strength, Yield    | 84.0 MPa                                       | 12200 psi  | ISO R527                                       |
| Elongation at Break        | 4.8 %  | 4.8 %  | ISO R527                                       |
| Elongation at Yield        | 3.7 %  | 3.7 %  | ISO R527                                       |
| Modulus of Elasticity      | 3.30 GPa                                       | 479 ksi  | ISO R527                                       |
| Flexural Strength          | 110 MPa  | 16000 psi  | After conditioning at 23°C and 50% RH; ISO 178 |
|                            | 185 MPa  | 26800 psi  | Dry; ISO 178                                   |
| Flexural Modulus           | 3.00 GPa                                       | 435 ksi  | After conditioning at 23°C and 50% RH; ISO 178 |
|                            | 3.20 GPa                                       | 464 ksi  | Dry; ISO 178                                   |
| Charpy Impact, Notched     | 2.10 J/cm <sup>2</sup>                         | 9.99 ft-lb/in <sup>2</sup>                         | After conditioning at 23°C/50%RH; ISO 179/Af   |
|                            | 2.00 J/cm <sup>2</sup><br>@Temperature 23.0 °C | 9.52 ft-lb/in <sup>2</sup><br>@Temperature 73.4 °F | Dry; ISO 179/Af                                |

| Mechanical Properties         | Metric                 | English                    | Comments  |
|-------------------------------|------------------------|----------------------------|---|
|                               | 19.5 J/cm <sup>2</sup> | 92.8 ft-lb/in <sup>2</sup> |   |
|                               | @Temperature -20.0 °C  | @Temperature -4.00 °F      |   |
|                               | 20.0 J/cm <sup>2</sup> | 95.2 ft-lb/in <sup>2</sup> | After conditioning at 23°C/50%RH;<br>ISO 179/Af |
|                               | @Temperature -20.0 °C  | @Temperature -4.00 °F      |   |
| Tensile Creep Modulus, 1 hour | 2530 MPa               | 367000 psi                 | ISO 899-1                                       |

| Thermal Properties                             | Metric | English | Comments  |
|--|--------|---------|-----------|
| Melting Point                                  | 220 °C | 428 °F  | ISO R1218 |
| Deflection Temperature at 0.46 MPa<br>(66 psi) | 210 °C | 410 °F  | ISO R75   |
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 190 °C | 374 °F  | ISO R75   |
| Flammability, UL94                             | HB     | HB      |           |

| Electrical Properties      | Metric               | English              | Comments   |
|----------------------------|----------------------|----------------------|------------|
| Volume Resistivity         | 1.40e+15 ohm-cm      | 1.40e+15 ohm-cm      | ASTM D257  |
| Surface Resistance         | 3.10e+15 ohm         | 3.10e+15 ohm         | ASTM D257  |
| Dielectric Strength        | 36.0 kV/mm           | 914 kV/in            | ASTM D149  |
|                            | @Thickness 1.00 mm   | @Thickness 0.0394 in |            |
| Dissipation Factor         | 0.024                | 0.024                | NFC 26 230 |
|                            | @Frequency 100000 Hz | @Frequency 100000 Hz |            |
|                            | 0.063                | 0.063                | NFC 26 230 |
|                            | @Frequency 100 Hz    | @Frequency 100 Hz    |            |
|                            | 0.065                | 0.065                | NFC 26 230 |
|                            | @Frequency 1000 Hz   | @Frequency 1000 Hz   |            |
| Comparative Tracking Index | >= 600 V             | >= 600 V             | NFC 26 220 |

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China