

## Arkema Group Orgalloy® RS 6635 A Polyamide 6.6 Alloy 35% Glass Fiber reinforced

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 40% Glass Fiber Filled

### Material Notes:

Polyamide Alloy, Rigid grade, Nylon 6.6 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-6635-A-Polyamide-66-Alloy-35-Glass-Fiber-reinforced.php](http://www.lookpolymers.com/polymer_Arkema-Group-Orgalloy-RS-6635-A-Polyamide-66-Alloy-35-Glass-Fiber-reinforced.php)

| Physical Properties                | Metric   | English  | Comments               |
|------------------------------------|--|--|------------------------|
| Density                            | 1.31 g/cc  | 0.0473 lb/in <sup>3</sup>                            | ISO R1183              |
| Water Absorption                   | 0.40 %   | 0.40 %   | 23°C / 24 hrs; ISO 62  |
| Moisture Absorption at Equilibrium | 0.90 %   | 0.90 %   | 23°C / 50% RH; ISO 62  |
|                                    | 1.9 %  | 1.9 %  | in 23°C water; ISO 62  |
| Melt Flow                          | 7.0 g/10 min<br>@Load 2.16 kg,<br>Temperature 235 °C | 7.0 g/10 min<br>@Load 4.76 lb,<br>Temperature 455 °F | after drying; ISO 1133 |

| Mechanical Properties         | Metric  | English   | Comments                                       |
|-------------------------------|---|---|--|
| Hardness, Shore D             | 83  | 83  | ISO 868  |
| Tensile Strength, Ultimate    | 160 MPa   | 23200 psi   | ISO R527                                       |
| Elongation at Break           | 3.4 %   | 3.4 %   | ISO R527                                       |
| Modulus of Elasticity         | 9.60 GPa  | 1390 ksi  | ISO R527                                       |
| Flexural Strength             | 240 MPa   | 34800 psi   | After conditioning at 23°C and 50% RH; ISO 178 |
| Flexural Modulus              | 8.20 GPa  | 1190 ksi  | After conditioning at 23°C and 50% RH; ISO 178 |
| Charpy Impact, Notched        | 2.25 J/cm <sup>2</sup>                          | 10.7 ft-lb/in <sup>2</sup>                          | After conditioning at 23°C/50%RH; ISO 179/Af   |
|                               | 20.0 J/cm <sup>2</sup><br>@Temperature -20.0 °C | 95.2 ft-lb/in <sup>2</sup><br>@Temperature -4.00 °F | After conditioning at 23°C/50%RH; ISO 179/Af   |
| Tensile Creep Modulus, 1 hour | 9320 MPa  | 1.35e+6 psi   | ISO 899-1                                      |

| Thermal Properties | Metric       | English        | Comments          |
|--------------------|--------------|----------------|-------------------|
| CTE, linear        | 17.0 µm/m-°C | 9.44 µin/in-°F | TMS2 Perkin Elmer |

| Thermal Properties                             | Metric<br>@Temperature 20.0 -<br>60.0 °C | English<br>@Temperature 68.0 -<br>140 °F | Comments                 |
|--|--|--|--------------------------|
| CTE, linear, Transverse to Flow                | 100 µm/m-°C                              | 55.6 µin/in-°F                           | TMS2 Perkin Elmer        |
|  | @Temperature 20.0 -<br>60.0 °C           | @Temperature 68.0 -<br>140 °F            |                          |
| Melting Point                                  | 255 °C                                   | 491 °F                                   | ISO R1218                |
| Deflection Temperature at 0.46 MPa<br>(66 psi) | 245 °C                                   | 473 °F                                   | ISO R75                  |
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 225 °C                                   | 437 °F                                   | ISO R75                  |
| Vicat Softening Point                          | 200 °C                                   | 392 °F                                   | 50 N - B method; ISO 306 |
|  | >= 230 °C                                | >= 446 °F                                | 10 N - A method; ISO 306 |
| Flammability, UL94                             | HB                                       | HB                                       |                          |

| Electrical Properties      | Metric               | English              | Comments   |
|----------------------------|----------------------|----------------------|------------|
| Volume Resistivity         | 1.90e+15 ohm-cm      | 1.90e+15 ohm-cm      | ASTM D257  |
| Surface Resistance         | 4.80e+15 ohm         | 4.80e+15 ohm         | ASTM D257  |
| Dielectric Strength        | 34.0 kV/mm           | 864 kV/in            | ASTM D149  |
|                            | @Thickness 1.00 mm   | @Thickness 0.0394 in |            |
| Dissipation Factor         | 0.015                | 0.015                | NFC 26 230 |
|                            | @Frequency 100000 Hz | @Frequency 100000 Hz |            |
|                            | 0.030                | 0.030                | NFC 26 230 |
|                            | @Frequency 100 Hz    | @Frequency 100 Hz    |            |
|                            | 0.031                | 0.031                | NFC 26 230 |
|                            | @Frequency 1000 Hz   | @Frequency 1000 Hz   |            |
| Comparative Tracking Index | >= 600 V             | >= 600 V             | NFC 26 220 |

| Descriptive Properties    | Value | Comments  |
|---------------------------|-------|-----------|
| Automotive classification | B-3   | FMVSS 302 |

## Contact Songhan Plastic Technology Co.,Ltd.

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