

## Huntsman IROGRAN® A 85 E 4607 E TPU-Polyester

Category : Polymer , Thermoplastic , Polyurethane, TP , Thermoplastic Polyurethane (TPUR), Polyester Grade

### Material Notes:

Introduction: IROGRAN A 85 E 4607 is a thermoplastic polyether- polyurethane intended for extrusion and injection molding applications. Additional characteristics of the product are excellent mechanical properties and high tear strength. Performance Features: Good melt flow High wear resistance High elasticity Oil resistance Low-temperature flexibility Applications: For the production of spiral hoses, tooth belts round cords, casual shoe soles Information provided by Alliance Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Huntsman-IROGRAN-A-85-E-4607-E-TPU-Polyester.php](http://www.lookpolymers.com/polymer_Huntsman-IROGRAN-A-85-E-4607-E-TPU-Polyester.php)

| Physical Properties    | Metric  | English   | Comments                       |
|------------------------|---|---|--------------------------------|
| Density                | 1.20 g/cc   | 0.0434 lb/in <sup>3</sup>                           |                                |
| Linear Mold Shrinkage  | 0.0060 cm/cm  | 0.0060 in/in  | Injection molded; ASTM D955    |
| Melt Index of Compound | 35 g/10 min<br>@Load 21.6 kg,<br>Temperature 190 °C | 35 g/10 min<br>@Load 47.6 lb,<br>Temperature 374 °F | MVR, [cm <sup>3</sup> /10 min] |

| Mechanical Properties     | Metric   | English  | Comments                                     |
|---------------------------|--|--|--|
| Hardness, Shore A         | 85   | 85   | Injection molded parts; ASTM D2240           |
| Hardness, Shore D         | 34   | 34   | Injection molded parts; ASTM D2240           |
| Tensile Strength at Break | 45.0 MPa   | 6530 psi   | Injection molded parts; DIN 53504            |
| Elongation at Break       | 650 %  | 650 %  | Injection molded parts; DIN 53504            |
| 100% Modulus              | 0.00500 GPa  | 0.725 ksi  | Injection molded parts; DIN 53504            |
| 300% Modulus              | 0.0140 GPa   | 2.03 ksi   | Injection molded parts; DIN 53504            |
| Tear Strength             | 99.9 kN/m  | 570 pli  | Injection molded parts; ASTM D624            |
| Abrasion                  | 25   | 25   | mm <sup>3</sup> , Injection molded; ISO 4649 |
| Compression Set           | 25 %<br>@Temperature 22.8<br>°C,<br>Time 86400 sec | 25 %<br>@Temperature 73.0<br>°F,<br>Time 24.0 hour | Injection molded; ASTM D395                  |
|                           | 40 %<br>@Temperature 70.0<br>°C,<br>Time 86400 sec | 40 %<br>@Temperature 158 °F,<br>Time 24.0 hour     | Injection molded; ASTM D395                  |

| Processing Properties     | Metric          | English        | Comments  |
|---------------------------|-----------------|----------------|-----------|
| Feed Temperature          | 25.0 - 40.0 Â°C | 77.0 - 104 Â°F | Extrusion |
| Middle Barrel Temperature | 165 - 190 Â°C   | 329 - 374 Â°F  | Extrusion |
| Nozzle Temperature        | 170 - 200 Â°C   | 338 - 392 Â°F  | Extrusion |
|                           | 180 - 200 Â°C   | 356 - 392 Â°F  | Injection |
| Adapter Temperature       | 175 - 195 Â°C   | 347 - 383 Â°F  | Extrusion |
| Die Temperature           | 175 - 200 Â°C   | 347 - 392 Â°F  | Extrusion |
| Melt Temperature          | 170 - 195 Â°C   | 338 - 383 Â°F  | Injection |
| Mold Temperature          | 20.0 - 70.0 Â°C | 68.0 - 158 Â°F | Injection |

## Contact Songhan Plastic Technology Co.,Ltd.

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