

## DuPont Performance Polymers Hytrel® RS 40F3 NC010 Polyester Elastomer TPC-ET (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Polyester, TP , Polyester Thermoplastic Elastomer

### Material Notes:

40 Shore D Renewably Sourced High Flow Polyester Elastomer Developed for Injection Molding Hytrel RS 40F3 NC010 is a high flow low modulus grade containing at least 50% renewably sourced ingredients by weight. It is suitable for injection molding process information provided by DuPont Performance Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Performance-Polymers-Hytrel-RS-40F3-NC010-Polyester-Elastomer-TPC-ET-Unverified-Data.php](http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Hytrel-RS-40F3-NC010-Polyester-Elastomer-TPC-ET-Unverified-Data.php)

| Physical Properties               | Metric                            | English                           | Comments                         |
|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------|
| Density                           | 1.11 g/cc                         | 0.0401 lb/in <sup>3</sup>         | ISO 1183                         |
| Linear Mold Shrinkage, Flow       | 0.0080 cm/cm                      | 0.0080 in/in                      | ISO 294-4 2577                   |
|                                   | 0.0090 cm/cm                      | 0.0090 in/in                      | 48h at 80°C; ISO 294-4           |
| Linear Mold Shrinkage, Transverse | 0.0060 cm/cm                      | 0.0060 in/in                      | ISO 294-4 2577                   |
|                                   | 0.0070 cm/cm                      | 0.0070 in/in                      | 48h at 80°C; ISO 294-4           |
| Melt Flow                         | 20 g/10 min                       | 20 g/10 min                       | cm <sup>3</sup> /10min; ISO 1133 |
|                                   | @Load 2.16 kg, Temperature 220 °C | @Load 4.76 lb, Temperature 428 °F |                                  |
|                                   | 20 g/10 min                       | 20 g/10 min                       | ISO 1133                         |
|                                   | @Load 2.16 kg, Temperature 220 °C | @Load 4.76 lb, Temperature 428 °F |                                  |

| Mechanical Properties     | Metric         | English        | Comments     |
|---------------------------|----------------|----------------|--------------|
| Hardness, Shore D         | 33             | 33             | 15s; ISO 868 |
|                           | <= 37          | <= 37          | ISO 868      |
| Tensile Strength at Break | 26.0 MPa       | 3770 psi       | ISO 527-1/-2 |
| Tensile Stress            | 2.10 MPa       | 305 psi        | ISO 527-1/-2 |
|                           | @Strain 5.00 % | @Strain 5.00 % |              |
|                           | 3.30 MPa       | 479 psi        | ISO 527-1/-2 |
|                           | @Strain 10.0 % | @Strain 10.0 % |              |
|                           | 6.50 MPa       | 943 psi        | ISO 527-1/-2 |
|                           | @Strain 50.0 % | @Strain 50.0 % |              |

| Mechanical Properties   | Metric                | English               | Comments              |
|-------------------------|-----------------------|-----------------------|-----------------------|
|                         | 800 %                 | 800 %                 | Nominal; ISO 527-1/-2 |
| Tensile Modulus         | 0.0450 GPa            | 6.53 ksi              | ISO 527-1/-2          |
| Flexural Modulus        | 0.0500 GPa            | 7.25 ksi              | ISO 178               |
| Charpy Impact Unnotched | NB                    | NB                    | ISO 179/1eU           |
|                         | NB                    | NB                    | ISO 179/1eU           |
|                         | @Temperature -30.0 °C | @Temperature -22.0 °F |                       |
| Charpy Impact, Notched  | NB                    | NB                    | ISO 179/1eA           |
|                         | NB                    | NB                    | ISO 179/1eA           |
|                         | @Temperature -30.0 °C | @Temperature -22.0 °F |                       |
|                         | NB                    | NB                    | ISO 179/1eA           |
|                         | @Temperature -40.0 °C | @Temperature -40.0 °F |                       |
| Tear Strength           | 97.0 kN/m             | 553 pli               | parallel; ISO 34-1    |
|                         | 99.0 kN/m             | 565 pli               | normal; ISO 34-1      |
| Abrasion                | 200                   | 200                   | mm³; ISO 4649         |

| Thermal Properties              | Metric             | English              | Comments                 |
|---------------------------------|--------------------|----------------------|--------------------------|
| CTE, linear, Parallel to Flow   | 210 µm/m-°C        | 117 µin/in-°F        | ISO 11359-1/-2           |
| CTE, linear, Transverse to Flow | 200 µm/m-°C        | 111 µin/in-°F        | ISO 11359-1/-2           |
| Melting Point                   | 190 °C             | 374 °F               | 10°C/min; ISO 11357-1/-3 |
| Brittleness Temperature         | -90.0 °C           | -130 °F              | ISO 974                  |
|                                 | -90.0 °C           | -130 °F              | ISO 6603-2               |
| Flammability, UL94              | HB                 | HB                   | IEC 60695-11-10          |
|                                 | @Thickness 1.50 mm | @Thickness 0.0591 in |                          |
| Oxygen Index                    | 20 %               | 20 %                 | ISO 4589-1/-2            |

| Descriptive Properties   | Value         | Comments  |
|--------------------------|---------------|-----------|
| Delivery Form            | Pellets       |           |
| Eff. thermal diffusivity | 5.44E-08 m²/s |           |
| Part Marking Code        | >TPC-ET<      | ISO 11469 |

| Descriptive Properties | Value                     | Comments |
|------------------------|---------------------------|----------|
| Regional Availability  | Asia Pacific              |          |
|                        | Europe                    |          |
|                        | Global                    |          |
|                        | Near East/Africa          |          |
|                        | North America             |          |
|                        | South and Central America |          |
| Resin Identification   | TPC-ET                    | ISO 1043 |

**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