Duro-Glide®
POLYMER SHEETS

02/13/2014

# PRODUCT INFOSHEET: Duro-Glide® Virgin UHMW Natural

Duro-Glide® Virgin Natural is an Ultra High Molecular Weight (UHMW) polymer which has a high molecular and meets the FDA requirements for food industry applications.

**FDA STATUS**
Complies with the FDA requirements of 21 CFR 177.1520 and 21 CFR 178.2010 with respect to the type of components as well as the relative concentration of each component in the composition.

**PROPERTIES**
Good sliding properties | Low coefficient of friction | Good notched impact strength

**INDUSTRY / APPLICATIONS**
Conveyor Industry | Machine Construction | Food Industry

**COLORS**
Natural (white)

**CHARACTERISTICS AND STANDARD VALUES**

| Physical Properties | Method | SI Unit | SI Value |
|---|---|---|---|
| Density | ASTM D792 | g/cc | 0.93 |
| Abrasion (Sand-Slurry-Test rel. to GUR 4120 = 100%) | ISO 15527 | % (Average) | 100 |
| Notched Impact Strength | ISO 11542-2 | mJ/mm² | > 170 |
| Tensile Strength, Yield | ISO 527-2 | Psi | 2650 |
| Break Elongation | ASTM D638 | % | 270 |
| Creep properties under varying compressive stress:<br>Creep <10% | Max. | Psi<br>MPa | 1450<br>10 |
| Coefficient of Friction, ASTM 1894 Metal= Rz 2,5 µ,<br>Pm= 2 N/mm2, V= 150 mm/min | Static<br>Dynamic | µ<br>µ | 0.20<br>0.18 |
| Shore-hardness, 3-s-value 6mm plate | ASTM D2240 | D | 63 |
| Water Absorption | -- | % | 0.1 |
| Flammability | UL 94 | -- | HB |
| **Thermal Properties** | | | |
| Melt Temperature | ASTM 3417 (DSC) | °F | 275 – 278 |
| Operation Temp., Max. | -- | °F | 176 |
| Coefficient of Linear Expansion | ASTM D696<br>DIN 53752 | 73 – 176 °F<br>23 – 80°C | ≈ $1.1 \times 10^{-4}$ /°F<br>≈ $2.0 \times 10^{-4}$ /°C |
| **Electrical Properties** | | | |
| Surface Resistivity | ASTM D257<br>IEC 93 | Ohm<br>Ω | > $10^{14}$<br>> $10^{14}$ |
| Volume Resistivity | ASTM D257<br>IEC 93 | Ohm<br>Ω | > $10^{14}$<br>> $10^{14}$ |



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