



Ultraform® N 2200 G53 UNC Q600

BASF Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

Ultraform N 2200 G53 UNC Q600 is a 25% glass fiber reinforced POM injection molding grade with enhanced stiffness and toughness.

Applications

Typical applications include chain conveyors and automotive suspension components.

General

| | | | |
|---------------------------|-------------------------------------|------------------|------------------|
| Material Status | • Commercial: Active | | |
| Availability | • North America | | |
| Filler / Reinforcement | • Glass Fiber, 25% Filler by Weight | | |
| Features | • Copolymer | • Good Stiffness | • Good Toughness |
| Uses | • Automotive Applications | • Conveyor Parts | |
| Agency Ratings | • EC 1907/2006 (REACH) | | |
| RoHS Compliance | • RoHS Compliant | | |
| Automotive Specifications | • CHRYSLER MS-DB-412 Color: Natural | | |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

ASTM & ISO Properties¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|------------------------|-------------|
| Density | 1.58 | g/cm ³ | ISO 1183 |
| Melt Volume-Flow Rate (MVR) (190°C/2.16 kg) | 4.00 | cm ³ /10min | ISO 1133 |
| Molding Shrinkage | | | ISO 294-4 |
| Across Flow | 1.4 | % | |
| Flow | 0.70 | % | |
| Water Absorption (Saturation, 73°F) | 0.90 | % | ISO 62 |
| Water Absorption (Equilibrium, 73°F, 50% RH) | 0.15 | % | ISO 62 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus (73°F) | 1.28E+6 | psi | ISO 527-2 |
| Tensile Stress | | | ISO 527-2 |
| Break, -40°F | 25100 | psi | |
| Break, 73°F | 18900 | psi | |
| Break, 176°F | 11500 | psi | |
| Tensile Strain | | | ISO 527-2 |
| Break, -40°F | 3.2 | % | |
| Break, 73°F | 3.0 | % | |
| Break, 176°F | 4.5 | % | |
| Tensile Creep Modulus (1 hr) | 1.09E+6 | psi | ISO 899-1 |
| Tensile Creep Modulus (1000 hr) | 841000 | psi | ISO 899-1 |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength | | | ISO 179 |
| -22°F | 4.0 | ft·lb/in ² | |
| 73°F | 4.3 | ft·lb/in ² | |

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| Impact | Nominal Value | Unit | Test Method |
|---|----------------------|-----------------------|--------------------|
| Charpy Unnotched Impact Strength | | | ISO 179 |
| -22°F | 29 | ft-lb/in ² | |
| 73°F | 26 | ft-lb/in ² | |
| Thermal | Nominal Value | Unit | Test Method |
| Heat Deflection Temperature (66 psi, Unannealed) | 329 | °F | ISO 75-2/B |
| Heat Deflection Temperature (264 psi, Unannealed) | 325 | °F | ISO 75-2/A |
| Melting Temperature (DSC) | 334 | °F | ISO 3146 |
| CLTE - Flow | 1.7E-5 | in/in/°F | |
| Electrical | Nominal Value | Unit | Test Method |
| Surface Resistivity | 1.0E+12 | ohms | IEC 60093 |
| Volume Resistivity | 1.0E+14 | ohms·cm | IEC 60093 |
| Electric Strength | 1100 | V/mil | IEC 60243-1 |
| Dielectric Constant | | | IEC 60250 |
| 100 Hz | 4.00 | | |
| 1 MHz | 4.00 | | |
| Dissipation Factor | | | IEC 60250 |
| 100 Hz | 2.0E-3 | | |
| 1 MHz | 5.0E-3 | | |
| Comparative Tracking Index | 600 | V | IEC 60112 |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|----------------------|-------------|
| Drying Temperature | 176 to 230 | °F |
| Drying Time | 2.0 to 4.0 | hr |
| Suggested Max Moisture | 0.15 | % |
| Processing (Melt) Temp | 374 to 446 | °F |
| Mold Temperature | 140 to 248 | °F |
| Injection Pressure | 508 to 1020 | psi |

Notes

¹ Typical properties: these are not to be construed as specifications.