# Ultrason® E 2010 SW Q31 10088

## Polyether Sulfone

## BASF Corporation

| General | |
|---|---|
| Material Status | • Commercial: Active |
| Availability | • Europe |
| Forms | • Pellets |
| Processing Method | • Injection Molding |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 1.37 | g/cm³ | ISO 1183 |
| Apparent Density | 0.70 to 0.80 | g/cm³ | Internal Method |
| Melt Volume-Flow Rate (MVR) (360°C/10.0 kg) | 70.0 | cm³/10min | ISO 1133 |
| Molding Shrinkage | | | ISO 294-4 |
| Across Flow | 0.86 | % | |
| Flow | 0.82 | % | |
| Water Absorption | | | ISO 62 |
| 24 hr, 23°C | 2.2 | % | |
| Equilibrium, 23°C, 50% RH | 0.80 | % | |
| Viscosity Number [2] | 56.0 | cm³/g | ISO 307 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Modulus | 2700 | MPa | ISO 527-2 |
| Tensile Stress (Yield) | 90.0 | MPa | ISO 527-2/50 |
| Tensile Strain (Yield) | 6.7 | % | ISO 527-2/50 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength (23°C) | 6.5 | kJ/m² | ISO 179/1eA |
| Charpy Unnotched Impact Strength (23°C) | No Break | | ISO 179/eU |
| Notched Izod Impact Strength (23°C) | 6.50 | kJ/m² | ISO 180/A |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Ball Indentation Hardness (H 358/30) | 154 | MPa | ISO 2039-1 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Heat Deflection Temperature | | | ISO 75-2/A |
| 1.8 MPa, Unannealed | 205 | °C | |
| Glass Transition Temperature | 225 | °C | ISO 11357-2 |
| CLTE - Flow | | | |
| 23 to 80°C | 0.000052 | cm/cm/°C | ISO 11359-2 |
| 180°C | 0.000059 | cm/cm/°C | DIN 53752 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating - UL (1.60 mm) | V-0 | | UL 94 |
| **Additional Information** | **Nominal Value** | **Unit** | |
| Polymer Abbreviation | PESU | | |

| Injection | Nominal Value | Unit |
|---|---|---|
| Drying Temperature | 130 to 150 | °C |
| Drying Time | > 4.0 | hr |
| Processing (Melt) Temp | 340 to 390 | °C |
| Mold Temperature | 140 to 180 | °C |

**Notes**

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

[2] in 0.1 g/ml Phenol/ortho-dichlorobenzene 1:1