Technical Data Sheet

# DOWLEX™ 2388 Polyethylene Resin

## Description

DOWLEX™ 2388 Polyethylene Resin an ethylene/octene-1 copolymer, produced in the proprietary solution process of The Dow Chemical Company. It has a unique molecular structure with a controlled side chain distribution, which provides excellent stress crack resistance properties combined with very good long term hydrostatic strength.

Processability: DOWLEX™ 2388 Polyethylene Resin is easy to process on traditional PE processing equipment. Typical extrusion temperatures for processing range from 190 to 230°C. For further information see our Extrusion Guideline.

## Applications

Pipes for hot and cold water systems, e.g.:

- Heating/cooling applications
- Radiator connections
- Warm / cold drinking water distributions
- Mono- and multi-layer pipe
- Industrial applications

## Main Characteristics

- Suitable for elevated temperatures without crosslinking
- Outstanding taste and odor performance
- Excellent processability

## Complies with

- European Commission Regulation (EU), No 10/2011
- U.S. FDA 21 CFR 177.1520(c)3.2a (with Restrictions)
- NSF International
- NSF/ANSI Standard 14
- NSF/ANS/CAN Standard 61
- ASTM D3350 cell classification PE 227375

Consult the regulations for complete details.

## Additive

- Antiblock: No
- Processing aid: No
- Slip: No

## Properties[1]

| Physical | Nominal Value | Unit | Test Method[2] |
|---|---|---|---|
| Density | 0.941 | g/cm$^3$ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) | | | ISO 1133 |
| 190°C/2.16 kg | 0.55 | g/10 min | |
| 190°C/5.0 kg | 1.9 | g/10 min | |
| **Mechanical** | | | |
| Tensile Modulus, | | | ISO 527-1 |
| 0.0787 in (2.00 mm), Compression Molded | 645 | MPa | |
| Tensile Stress | | | ISO 527-2/50 |
| Yield, 0.0787 in (2.00 mm), Compression Molded | 20.3 | MPa | |
| Break, 0.0787 in (2.00 mm), Compression Molded | 37.0 | MPa | |
| Tensile Strain | | | ISO 527-2/50 |
| Yield, 0.0787 in (2.00 mm), Compression Molded | 14 | % | |
| Break, 0.0787 in (2.00 mm), Compression Molded | 780 | % | |
| Flexural Modulus | | | ISO 178 |
| 0.0787 in (2.00 mm), Compression Molded | 660 | MPa | |
| **Impact** | | | |
| Notched Izod Impact Strength | 23 | kJ/m$^2$ | ISO 180 |
| **Hardness** | | | |
| Shore Hardness | | | ISO 868 |
| Shore D, 0.0787 in (2.00 mm), Compression Molded | 61 | | |
| **Thermal** | | | |
| Vicat Softening Temperature | 125 | °C | ASTM D1525 |
| CLTE – Flow (68 to 158°F (20 to 70°C)) | 1.8E-4 | cm/cm/°C | DIN 53752 |
| Thermal Conductivity (140°F (60°C)) | 0.40 | W/m/K | DIN 52612 |

1. Typical properties: these are not to be construed as specifications.
2. ISO: International Standardization Organization
   ASTM: American Society for Testing and Materials
   DIN: Deutsche Industrie Norm

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https://www.dow.com/en-us/support/product-safety.html

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