

# DELRIN® 570 natural - Stock Shapes

# **Chemical Designation**

POM-H (Polyacetal (Homopolymer))

### Colour

cream white

# Density

1.56 g/cm<sup>3</sup>

#### **Fillers**

glass fibres

# Main features

- → very good dimensional stability
- → excellent strength and stiffness
- → good machinability
- → very high creep resistant

# Target Industries

- → automotive industry
- → construction industry
- → fixture construction
- → gear manufacturing

| Mechanical properties                 | condition           | value                 |           | test method |    | comment   |  |
|---------------------------------------|---------------------|-----------------------|-----------|-------------|----|---|--|
| Modulus of elasticity (tensile test)  | @ 73 °F             | 350,000               | psi       | ASTM D 638  |    |   |  |
| Tensile strength at yield             | @ 73 °F             | 7,700                 | psi       | ASTM D 638  |    |   |  |
| Elongation at break                   | @ 73 °F             | 10                    | %         | ASTM D 638  |    |   |  |
| Flexural strength                     | @ 73 °F             | 14,500                | psi       | ASTM D 790  | _  | <br><br>  |  |
| Modulus of elasticity (flexural test) | @ 73 °F             | 650,000               | psi       | ASTM D 790  |    |   |  |
| Compression strength                  | @ 73 °F, 10% strain | 14,500                | psi       | ASTM D 695  |    |   |  |
| Compression strength                  | @ 73 °F, 1% strain  | 1500                  | psi       | ASTM D 695  |    |   |  |
| Notched impact strength (Izod)        |                     | 0.90                  | ft-lbs/in | ASTM D 256  |    |   |  |
| Rockwell hardness                     | M Scale             | 87                    |           | ASTM D 785  |    |   |  |
| Thermal properties                    | condition           | value                 | -         | test method | _  | comment   |  |
| Melting temperature                   |                     | 347                   | °F        | -           | 1) | (1) Injection molded data   |  |
| Deflection temperature                | @ 66 psi            | 329                   | °F        | ASTM D 648  | 2) | (2) Data obtained from public source (3) Injection molded data                |  |
| Deflection temperature                | @264 psi            | 311                   | °F        | ASTM D 648  | 3) |   |  |
| Service temperature                   | Intermittent        | 300                   | °F        | -           |    |   |  |
| Service temperature                   | Long Term           | 185                   | °F        | -           |    |   |  |
| Thermal expansion (CLTE)              | _                   | 4.72*10 <sup>-5</sup> | in/in/°F  | -           |    |   |  |
| Electrical properties                 | condition           | value                 |           | test method |    | comment   |  |
| surface resistivity                   | @ 73 °F             | 200e+15               | Ω         | ASTM D 257  | 1) | (1) Injection molded data (2) Injection molded data (3) Injection molded data |  |
| Dielectric strength                   | @ 73 °F             | 452                   | V/mil     | ASTM D 149  | 2) |   |  |
| Dielectric constant                   | @ 100 MHz; 73°F     | 3.8                   |           | ASTM D 150  | 3) |   |  |
| Other properties                      | condition           | value                 |           | test method |    | comment   |  |
| Moisture absorption                   | @ 24 hrs, 73 °F     | 0.15                  | %         | ASTM D 570  |    | (1) Injection molded data<br>··· (1.5mm thick)                                |  |
| Flammability (UL94)                   |                     | HB                    |           | -           | 1) |   |  |

<sup>→</sup> Resin specification: ASTM D6778-06 POM0110G20A22220 Z01 superceding ASTM D4181-00 POM110G20A29990, UM19, PM2.2, Y73, Z01 Shapes specification: ASTM D 6100-11 S-POM0100G201125453

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