

**Datasheet**

# RS PRO POM-H Natural Rod 20mm Diameter x 1000mm long

Stock No: 770-305

**Specifications:**

|                      |                                  |
|----------------------|----------------------------------|
| Chemical designation | POM-H (Polyacetal (Homopolymer)) |
| Colour               | White                            |
| Density              | 1.43 g/cm <sup>3</sup>           |
| Filler(s)            | None                             |

## Technical Specifications:

| Mechanical Properties                 | Parameter             | Value   | Unit  | Standard/Norm      |
|---------------------------------------|-----------------------|---------|-------|--------------------|
| Modulus of elasticity (tensile test)  | 1mm/min               | 3400    | MPa   | DIN EN ISO 527-2   |
| Tensile strength                      | 50mm/min              | 79      | MPa   | DIN EN ISO 527-2   |
| Tensile strength at yield             | 50mm/min              | 79      | MPa   | DIN EN ISO 527-2   |
| Elongation at yield                   | 50mm/min              | 37      | %     | DIN EN ISO 527-2   |
| Elongation at break                   | 50mm/min              | 45      | %     | DIN EN ISO 527-2   |
| Flexural strength                     | 2mm/min, 10N          | 106     | MPa   | DIN EN ISO 178     |
| Modulus of elasticity (flexural test) | 2mm/min, 10N          | 3600    | MPa   | DIN EN ISO 178     |
| Compressive strength                  | 1% / 2%; 5mm/min, 10N | 19 / 33 | MPa   | EN ISO 604         |
| Compression modulus                   | 5mm/min, 10N          | 3700    | MPa   | EN ISO 604         |
| Impact strength (Charpy)              | max. 7.5J             | n.b.    | kJ/m2 | DIN EN ISO 179-1eU |
| Notched impact strength (Charpy)      | max. 7.5J             | 15      | kJ/m2 | DIN EN ISO 179-1eA |
| Ball indentation hardness             |                       | 185     | MPa   | ISO 2039-1         |

| Thermal Properties           | Parameter      | Value | Unit                             | Standard/Norm        |
|------------------------------|----------------|-------|----------------------------------|----------------------|
| Glass transition temperature |                | -60   | °C                               | DIN 53765            |
| Melting temperature          |                | 182   | °C                               | DIN 53765            |
| Service temperature          | Short term     | 150   | °C                               |                      |
| Service temperature          | Long term      | 110   | °C                               |                      |
| Thermal expansion (CLTE)     | 23-60°C, long  | 12    | 10 <sup>-5</sup> K <sup>-1</sup> | DIN EN ISO 11359-1;2 |
| Thermal expansion (CLTE)     | 23-100°C, long | 13    | 10 <sup>-5</sup> K <sup>-1</sup> | DIN EN ISO 11359-1;2 |
| Specific heat                |                | 1.3   | J/(g*K)                          | ISO 22007-4:2008     |
| Thermal conductivity         |                | 0.43  | W/(K*m)                          | ISO 22007-4:2008     |

| Electrical Properties       | Parameter                        | Value            | Unit | Standard/Norm |
|-----------------------------|----------------------------------|------------------|------|---------------|
| Specific surface resistance | Silver electrode, 23°C, 12% r.h. | 10 <sup>14</sup> | W    | DIN IEC 60093 |

| Other Properties                | Parameter         | Value      | Unit | Standard/Norm       |
|---------------------------------|-------------------|------------|------|---------------------|
| Water absorption                | 24h / 96h (23 °C) | 0.05 / 0.1 | %    | DIN EN ISO 62       |
| Resistance to hot water / bases |                   | -          |      |                     |
| Resistance to weathering        |                   | -          |      |                     |
| Flammability (UL94)             | corresponding to  | HB         |      | DIN IEC 60695-11-10 |



### **Features & Benefits:**

- **Manufactured using DuPont™ Delrin® resin**
- **High Strength**
- **Difficult to bond**
- **Good slide and wear properties**
- **Good machinability**
- **Not hot water resistant over 60°C**
- **Good chemical resistance**
- **Easy to polish**
- **Electrically insulating**

### **Compliances:**

- **ISO 9001 Approved**
- **FDA**
- **ROHS**
- **EU 10/2011**
- **REACH**
- **Aerospace Approved**