

# Meldin® 7001 PI Rod

**Grade:** Meldin® 7001

**Formula:** PI

**Diameter:** 38mm

**Length:** 100mm

**UOM Code:** 475-996-33

**SKU:** 1000121515

**Product Code:** IM30-RD-000150

## Material Properties for Polymers

### Chemical Resistance

| Element                  | Value |
|--------------------------|-------|
| Acids - concentrated     | Poor  |
| Acids - dilute           | Fair  |
| Alcohols                 | Poor  |
| Alkalis                  | Poor  |
| Aromatic hydrocarbons    | Good  |
| Greases and Oils         | Good  |
| Halogenated Hydrocarbons | Good  |
| Halogens                 | Fair  |
| Ketones                  | Good  |

### Mechanical Properties

| Element                                   | Value  |
|-------------------------------------------|--------|
| Coefficient of friction                   | 0.42   |
| Hardness - Rockwell                       | E52-99 |
| Elongation at break( % )                  | Aug-70 |
| Tensile modulus( GPa )                    | 02-Mar |
| Izod impact strength( J m <sup>21</sup> ) | 80     |
| Tensile strength( MPa )                   | 70-150 |

### Electrical Properties

| Element | Value |
|---------|-------|
|---------|-------|

Dielectric constant @1MHz 3.4  
Dissipation factor @ 1kHz 0.0018  
Dielectric strength( kV mm<sup>-1</sup> ) 22  
Surface resistivity( Ohm/sq ) 10<sup>12</sup>  
Volume resistivity( Ohmcm ) 10<sup>12</sup>

## Physical Properties

| Element                               | Value   |
|---------------------------------------|---------|
| Flammability                          | V0      |
| Radiation resistance                  | Good    |
| Refractive index                      | 1.66    |
| Resistance to Ultra-violet            | Poor    |
| Limiting oxygen index( % )            | 53      |
| Water absorption - over 24 hours( % ) | 0.2-2.9 |
| Density( gcm <sup>-3</sup> )          | 1.42    |

## Thermal Properties

| Element                                                               | Value         |
|-----------------------------------------------------------------------|---------------|
| Heat-deflection temperature - 1.8MPa( C )                             | 360           |
| Lower working temperature( C )                                        | -270          |
| Upper working temperature( C )                                        | 250-320       |
| Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )                   | 1090          |
| Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )             | 0.1-0.35@23°C |
| Coefficient of thermal expansion( x10 <sup>-5</sup> K <sup>-1</sup> ) | 30-60         |