

ACETAL HOMOPOLYMER (POM-H)

Chemical Name: Polyoxy-methylene

Common/Trade Names: POM-H Delrin® Ertacetal H®, POM-C Acetal Celcon® Hostafom® Ertacetal C®

Abbreviation: POM-H (Acetal Homopolymere), POM-C (Acetal Copolymere)

Properties (Colour): Natural (White), Black

Properties (Form): Rod, Plate, Tube, Custom

Machining: Machines well with sharp conventional tooling for plastics.

Types: Glass Filled, Carbon Filled, PTFE Filled

Chemical Resistance: Acetals have good resistance to solvents and lubricants but are attacked by strong acids and alkalis.

KEY BENEFITS

- Solvent, fuel & moisture resistance
- Suitable for use in moist environments
- Good dimensional stability
- Moderate mechanical strength & stiffness
- Low friction
- Excellent properties in wet & dry environments
- Easy to machine

| MECHANICAL PROPERTIES | |
|---|----------|
| Density ρ (g/cm ³) | 1.42 |
| Tensile Strength at Yield σ (Mpa) | 70 |
| Elongation at Break % | 40 |
| Modulus of Elasticity Tensile E_t (Mpa) | 3300 |
| Modulus of Elasticity Bending E_b (Mpa) | 2620 |
| Impact Strength kJ/mm ² | NO BREAK |
| Hardness Ball Indent | 170 |
| Creep 1 % after 1000hr MPa | 13 |
| Coefficient of friction against Steel μ | 0.34 |

| THERMAL PROPERTIES | |
|---|------|
| Melting Point °C | 175 |
| Glass Transition Temperature °C | -38 |
| Thermal Conductivity W/M°C | 0.31 |
| Specific Heat J/(g.K) | 1.5 |
| Coefficient of Linear Expansion α 10 ⁻⁶ .°K | 100 |
| Safe Working Temp. Short Term °C | 170 |
| Safe Working Temp. Continuous °C | 100 |
| Minimum Working Temperature °C | -40 |

| ELECTRICAL PROPERTIES | |
|--|-------------------|
| Dielectric Constant ϵ 106 Hz | 0.005 |
| Dielectric loss Factor $\tan\delta$ 106 Hz | 10 ¹⁵ |
| Volume Resistance Ω .cm | 10 ¹³ |
| Surface Resistance Ω | 10 ¹³ |
| Dielectric Strength kV/mm | >51 ¹³ |
| Moisture Absorption % (at 50%RH) | - |

Whilst all care has been taken to provide accurate & up to date information, we cannot provide legal certification of properties. We recommend that this information be used as a design guide only. Actual testing should be undertaken to confirm data if certification is required.

If you need further information relating to the above data or require additional information please contact our team, we're here to help.



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