

QUADRANT EPP PRODUCT DATA SHEET

ERTACETAL® H

June 2001

Acetal Homopolymer (POM-H)

ERTACETAL® H is a homopolymer, manufactured into stock shapes from Delrin® resin, with similar properties to ERTACETAL® C. However, ERTACETAL® H is a superior mechanical material, with even better machining properties.

- Physiologically inert
- High impact strength
- Good sliding properties
- Good chemical resistance (4 < pH < 9)
- Excellent machinability
- Very good dimensional stability
- Excellent resilience
- Ideal for close tolerance components

Common applications: Pump housings; Impellers; Gears; Bearings; Valves; Valve seats; Domestic appliance parts; Electrical components.

Delivery Programme

| | | | |
|--------------------|---------|-----------|--|
| Rod 1m & 3m long | | | |
| Diameter (mm): | 5 (Min) | 200 (Max) | |
| Plate 1m & 3m long | | | |
| Width (mm): | 610 | | |
| Thickness (mm): | 8 (Min) | 50 (Max) | |

Technical Specification

| Property | ISO Methods | Units | ERTACETAL® H |
|---|-------------|------------------------------------|-------------------|
| Colour | - | - | White |
| Density | 1183 | g/cm ³ | 1.43 |
| Water absorption | | | |
| Saturation in air (23°C / 50% RH) | - | % | 0.20 |
| Saturation in water (23°C) | - | % | 0.85 |
| Tensile strength* ¹ | 527 | N/mm ² | 78 |
| Tensile modulus of elasticity* ¹ | 527 | N/mm ² | 3600 |
| Elongation at break* ¹ | 527 | % | 35 |
| Impact - Charpy* ¹ | 179/1eU | kJ/m ² | >200 |
| Impact - Izod notched* ¹ | 180/2A | kJ/m ² | 10 |
| Hardness | Rockwell | - | M88 |
| | Shore D | - | - |
| Melt point | - | °C | 175 |
| Max allowable service temp in air | | | |
| for short periods | - | °C | 150 |
| continuously for 20,000hrs | - | °C | 90 |
| Linear thermal expansion coefficient | - | K ⁻¹ x 10 ⁻⁵ | 9.5 |
| Thermal conductivity | - | W/(K.m) | 0.31 |
| Flammability* ² (6mm thickness) | - | - | HB |
| Volume resistivity* ¹ | IEC93 | Ohm.cm | >10 ¹⁴ |
| Dielectric strength* ¹ | IEC243 | kV/mm | 20 |
| Outside applications - UV resistance | - | - | B |
| Acids - strong (pH < 3) | - | - | C |
| Alkalis - strong (pH > 11) | - | - | C |
| Chlorinated hydrocarbons | - | - | A/B |
| Hot water | - | - | B |

Distributor

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'A' - Acceptable service; 'B' - Limited service; 'C' - Unacceptable.

*¹ Measured on dry test specimens (where applicable)

*² Tests completed by Quadrant EPP, using UL test methods

Not all material sizes shown within the delivery programme section of this data sheet are available as standard. Please contact Quadrant EPP UK Ltd for further details.

The data shown are typical values and are not intended to represent specifications. Their aim is to guide the user toward a material choice.