

# DSM EPP PRODUCT DATA SHEET

## ERTACETAL® C

Acetal Copolymer (POM-C)

717-1470 TO 717-1365

May 1999

ERTACETAL® C has a good combination of properties, making it suitable for many applications. With low moisture absorption, good dimensional stability and ease of machining make ERTACETAL® C an ideal choice for precision machined components.

- Physiologically inert
- High impact strength
- Good sliding properties
- Good chemical resistance (4 < pH < 13)
- 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):	3 (Min)	250 (Max)	
Tube 1m & 3m long			
O.D. (mm):	20 (Min)	350 (Max)	
I.D. (mm):	10 (Min)	300 (Max)	
Coils 50kg weight			
Width (mm):	1m		
Thickness (mm):	0.5 (Min)	1.0 (Max)	
Sheet 1m & 2m long			
Width (mm):	1m		
Thickness (mm):	1 (Min)	6 (Max)	
Plate 1m & 3m long			
Width (mm):	1m		
Thickness (mm):	8 (Min)	50 (Max)	
Plate 1m & 3m long			
Width (mm):	610mm		
Thickness (mm):	8 (Min)	100 (Max)	

### Distributor

### Technical Specification

Property	ISO Methods	Units	ERTACETAL® C
Colour	-	-	White
Density	1183	g/cm <sup>3</sup>	1.41
Water absorption			
Saturation in air (23°C / 50% RH)	-	%	0.20
Saturation in water (23°C)	-	%	0.85
Tensile strength* <sup>1</sup>	527	N/mm <sup>2</sup>	68
Tensile modulus of elasticity* <sup>1</sup>	527	N/mm <sup>2</sup>	3100
Elongation at break* <sup>1</sup>	527	%	35
Impact - Charpy* <sup>1</sup>	179/1eU	kJ/m <sup>2</sup>	>150
Impact - Izod notched* <sup>1</sup>	180/2A	kJ/m <sup>2</sup>	7
Hardness			
	Rockwell	-	M84
	Shore D	-	-
Melt point			
	-	°C	165
Max allowable service temp in air			
for short periods	-	°C	140
continuously for 20,000hrs	-	°C	100
Linear thermal expansion coefficient	-	K <sup>-1</sup> x 10 <sup>-5</sup>	11.0
Thermal conductivity	-	W/(K.m)	0.31
Flammability* <sup>2</sup> (6mm thickness)	-	-	HB
Volume resistivity* <sup>1</sup>	IEC93	Ohm.cm	>10 <sup>14</sup>
Dielectric strength* <sup>1</sup>	IEC243	kV/mm	20
Outside applications - UV resistance	-	-	C/B
Acids - strong (pH < 3)	-	-	C
Alkalis - strong (pH > 11)	-	-	A
Chlorinated hydrocarbons	-	-	A/B
Hot water	-	-	A

\*A - Acceptable service; \*B - Limited service; \*C - Unacceptable.

\*<sup>1</sup> Measured on dry test specimens (where applicable)

\*<sup>2</sup> Tests completed by DSM 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 DSM Engineering Plastic Products UK 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.