

## POMc MD

This copolymer acetal grade, contains a metal detectable additive. It is suitable for use in the food processing and packaging industries where can be traced by conventional metal detection system installed to detect contamination of food. Results are strictly dependent on the sensitivity of the metal detection system used.

### Physical Properties (indicative values)

GENERAL PROPERTIES	Test Method	Value
Density	ISO 1183 DIN 53479	1.46 g/cm <sup>3</sup>
Water absorption in air 50% r.h.		0.20%
Absorption 23-C in water-saturation		0.75%
MECHANICAL PROPERTIES		
Tensile Strength at yield at break	ISO 527 DIN53455	66 N/mm <sup>2</sup>
Elongation at break	ISO 527 DIN53455	50%
Tensile Modulus of elasticity	ISO 527 DIN53455	2900 N/mm <sup>2</sup>
Compression test 1% strain 1000h	ISO 899 DIN53444	25 N/mm <sup>2</sup>
Impact strength Charpy 7,5 J	ISO R179 DIN53453	no break
Notched impact strength Charpy	ISO179/3C DIN53453	5 KJ/ mm <sup>2</sup>
Ball indentation hardness	ISO2039.1 DIN53456	150 N/mm <sup>2</sup>
Rockwell hardness (dry)	ISO2039.2	M86
Coefficient of friction to steel <sup>[12]</sup>		0.30
THERMAL PROPERTIES		
Melting point		165°C
Thermal conductivity	DIN 52612	0.31 W/(km)
Deformation at temperature HDT <sup>[15]</sup>	ISO 75 DIN 53461	115°C
Linear expansion coefficient 23-60°C		115 x 10 <sup>-6</sup> K <sup>-1</sup>
Operating temperature continuously <sup>[17]</sup>		105°C
Operating temperature short period-no load <sup>[18]</sup>		140°C
TECHNOLOGICAL SOLUTIONS		
Minimum operating temperature <sup>[19]</sup>		-30°C
Flammability UL 94 (3-6 mm thickness)	UL94	HB
Oxygen index (LOI)	ISO4589	15%
ELECTRICAL PROPERTIES		
Dielectric constant at 1MHz	ISO 250 DIN53483	3.8
Dielectric strength	ISO 243 DIN 53481	50 KV/mm
Volume resistivity	ISO 93 DIN 53482	10 <sup>15</sup> Ωcm
Dissipation factor tan Δ at 1MHz	ISO 250 DIN53483	0,01

- Figures relate to specimen conditioned at 23°C and 50% RH. Figures between brackets relate to dry specimen. Figures for materials marked with \* can change according to their moisture content.

- Figures refer to un-coloured specimen either injection moulded or machined in the easiest way. Tests made on specimen of different sizes give slightly different results.

- [12] Test on ground steel dry specimen load =0,05 N/mm<sup>2</sup> speed=0,6 m/s.

- [15] Deformation at temperature. HDT at 1,8 N/mm<sup>2</sup>

- [17] Operating temperature continuously 5000h From 23°C upwards the materials' features change in a non-uniform and disproportional way due to the heat. The quoted limits are indicative and based on a tensile stress of 50% of the value at 23° C.

- [18] Operating temperature short period (no load)

- [19] The mechanical features decrease with a reduction in temperature and are influenced also by other factors (moisture, etc.).

The quoted value does not take into consideration impact conditions or heavy loads.

- A Amorphous

- All values and information provided are based on information currently in our possession and/or results archived from tests conducted in our laboratories. They are given in good faith and are not legally binding. For any particular application, the technical staff of Omnia Plastica spa is at your disposal to assist with solving your problem.

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