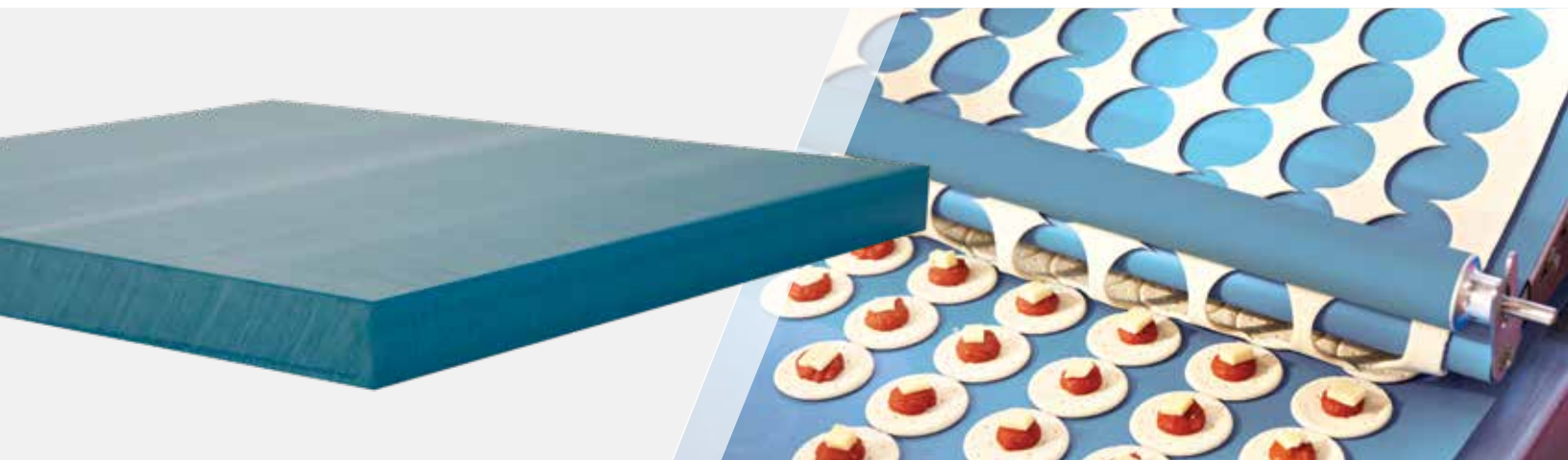


Acetron® MD POM-C

Acetron® MD offers a unique combination of excellent mechanical strength, impact strength, and stiffness. This FDA / EU compliant material can be easily traced by conventional metal detection systems installed to detect the contamination of foodstuffs.*

**Results may vary depending on the sensitivity of the metal detection system used.



Competitive Advantage

Acetron® MD has gained popularity in today's conventional metal detection systems market, improving the contamination detectability process in foodstuffs with superior multi-detectable features: visual, metal and x-ray. Acetron® MD has been successfully used in meat and poultry processing, dairy and cheese production as well as meeting the various needs within the medical and pharmaceutical production environments.

Key Benefits

- Formulated for use with existing metal detection units
- Wear resistant
- High dimensional stability
- Same good chemical resistance as other POM materials
- Good bearing performance in wet and dry environments
- An ideal choice for elevated temperature applications with a continuous use temperature up to 221°F (105°C)
- Food contact safe: FDA and EU 10/2011 compliant

Common Applications

- Bearings / bushings
- Scraper blades
- Conveyor wear surfaces
- Change parts
- Timing screws
- Star wheels

Other MD Family Materials

- TIVAR® MD UHMW-PE
- Nylatron® MD PA6
- Ketron® MD PEEK



Data Sheet

		Metric		Imperial	
		Test Method ISO	Typical Average Value	Test Method ASTM	Typical Average Value
Mechanical Properties	Density (Specific Gravity @ 73°F)	ISO 1183-1	1.46 g/cm ³	ASTM D792	1.47
	Tensile Strength @ 23°C (73°F)	ISO 527-1/-2	66 MPa	ASTM D638	9,000 psi
	Tensile Modulus of Elasticity @ 23°C (73°F)	ISO 527-1/-2	2950 MPa	ASTM D638	415,000 psi
	Tensile Elongation (at break) @ 23°C (73°F)	ISO 527-1/-2	15%	ASTM D638	15%
	Flexural Strength @ 23°C (73°F)	ISO 178	93 MPa	ASTM D790	12,000 psi
	Flexural Modulus of Elasticity @ 23°C (73°F)	ISO 178	2800 MPa	ASTM D790	400,600 psi
	Shear Strength @ 23°C (73°F)	N/A	N/A	ASTM D732	8,000 psi
	Compressive Stress / Strength @ 23°C (73°F)	ISO 604	25 / 44 / 7 MPa (1 / 2 / 5% Normal Strain)	ASTM D695	13,200 psi (10% Deformation)
	Compressive Modulus of Elasticity @ 23°C (73°F)	ISO 604	-	ASTM D695	270,000 psi
	Hardness, Rockwell, Scale as Noted @ 23°C (73°F)	ISO 2039-2	M86	ASTM D785	M89 (R121)
	Hardness, Durometer, Shore "D" Scale @ 23°C (73°F)	ISO 868	D80	ASTM D2240	D85
	Charpy impact strength, Unnotched @ 23°C (73°F)	ISO 179-1/1eU	70 kJ/m ²	N/A	N/A
	Charpy impact strength, Notched @ 23°C (73°F)	ISO 179-1/1eA	5 kJ/m ²	ASTM D25 6 Type "A"	0.8 ft. lb./in.
	Coefficient of Friction – (Dry vs. Steel) Dynamic	ISO 7148-2	0.3-0.45	MCAM TM 55007	0.3
	Limiting PV with 4:1 safety factor applied	-	-	MCAM TM 55007	4,000 ft. lb., in. ² - min
	Wear Factor	ISO 7148-2	45 µm/km	MCAM TM 55010	400 in. ³ min/ft. lbs. hr.
Thermal Prop.	Coefficient of Linear Thermal Expansion 23-6 °C (-40°F to 300°F)	ASTM E831 (TMA)	115 x 10 ⁻⁶ m/(m.K)	ASTM E831 (TMA)	7.1 x 10 ⁻⁵ in./in./°F
	Heat Deflection Temperature @ 1.8 MPa (264 psi)	ISO 75 -1/-2	100°C	ASTM D648	280°F
	Tg-Glass Transition (amorphous)	ISO 11357-1/-2	-	ASTM D3418	-
	Melting Point (crystalline) peak	ISO 11357-1/-3	165°C	ASTM D3418	340°F
	Continuous Service Temp in Air (Max.) ⁽¹⁾	-	90°C	-	180°F
	Thermal Conductivity	-	0.31 W/(K.m)	-	-
Electrical Prop.	Dielectric Strength (Short Term)	ISO 60243-1	0.31 W/(K.m)	ASTM D149	-
	Surface Resistivity	EOS/ESD S11.11	>10 ¹² ohm/sq	EOS/ESD S11.11	>10 ¹³ ohms/square
	Dielectric Constant, 10 ⁶ Hz	IEC 60250	-	ASTM D150	-
	Dissipation Factor, 10 ⁶ Hz	IEC 60250	-	ASTM D150	-
	Flammability @ 3.1mm (1/8 in.) ⁽²⁾	UL 94	HB	UL-94	HB
Other	Water Absorption Immersion, 24 Hours	ISO 62	0.78%	ASTM D570 ⁽³⁾	0.20% by wt.
	Water Absorption Immersion, Saturation	-	0.75%	ASTM D570 ⁽³⁾	-

(1) Data represents our estimated maximum long-term service temperature based on practical field experience. (2) Estimated rating based on available data. The UL-94 Test is a laboratory test and does not relate to actual fire hazard. Contact us for specific UL "Yellow Card" recognition number. (3) Specimens: 1/8" thick x 2" diameter or square.

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