

Ketron® MD PEEK

Globally Compliant & Multi-Detectable Thermoplastic Material

Ketron® MD PEEK is a multi-detectable polyetheretherketone thermoplastic polymer developed for extreme environments within the Food Processing Industry. It offers extreme dimensional stability, high strength, and high temperature resistance.



Competitive Advantage

Ketron® MD improves the contamination detectability process in foodstuffs with superior detectability while also enhancing efficiency, safety, MTBR and product integrity by eliminating expensive recalls.

Detectability



Visual



Metal



X-Ray

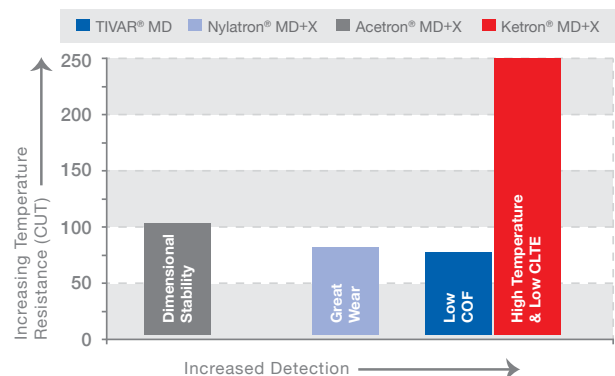
Key Benefits

- Impact resistant
 - Charpy notched (at least 3.0 kJ/m²)
- An ideal choice for elevated temperature applications with a continuous use temperature up to 482°F (250°C)
- Low CLTE of 45 x10⁻⁶– m/(m.K) below 100°C
- Heat Deflection Temperature of 150°C at 1.8MPa
- Food contact safe: FDA, full REACH & EU 10/2011 compliant

Compliance Properties for Food Processing

	TIVAR® MD	Nylatron® MD	Acetron® MD	Ketron® MD
Base Polymer	UHMW-PE	PA 6	POM-C	PEEK
DoC 1935/2004 per EU 10/2011	✓	✓	✓	✓
FDA	✓	✓	✓	✓
REACH	✓	✓	✓	✓

Metal & X-Ray Detection & Thermal Properties



* DISCLAIMER: Must be tested in actual environment with actual machines

Common Applications

- Pistons
- Manifolds
- Valves
- Extrusion dies for dough / meat application
- Hot oil / oven applications
- High heat mixing vessels
 - Cereal (pelletizers)
 - Candy (liquifier)
 - Baby food
 - Cooked food processing (mixers, and process vessels)

Availability

Rod(s)

- 30mm – 120mm diameter

Standard Stock

- 25, 50, 100 x 3000mm

Plate

- 10mm – 150mm thick

Standard Stock

- 25, 50mm x 615 x 3000mm

Other MD Family Materials

- TIVAR® MD UHMW-PE
- Nylatron® MD PA6
- Acetron® MD POM-C



Comparison of Critical Properties for Food Processing

Properties	ISO Test Method	ASTM Test Method	TIVAR® MD	Nylatron® MD	Acetron® MD	Ketron® MD
Density (Specific Gravity)	ISO 11-83-1	ASTM D792	1.01 g/cm (0.954)	1.21 g/cm (1.25)	1.46 g/cm (1.47)	1.44 g/cm (1.45)
CLTE, Average Value Between 23°C (73°F) and 100°C (212°F)	-	ASTM E831	200 x 10 ⁻⁶ (110 µin/in-°F)	100 x 10 ⁻⁶ (50 µin/in-°F)	130 x 10 ⁻⁶ (71 µin/in-°F)	45 x 10 ⁻⁶ (25 µin/in-°F)
HDT at 1.8 MPa (264 psi)	ISO 75	ASTM D648	42°C (116°F)	85°C (200°F)	100°C (280°F)	Not Tested (320°F)
CUT (20,000 hrs)	-	-	80°C (176°F)	85°C (185°F)	105°C (221°F)	250°C (482°F)
Relative Cost	-	-	€ € € (\$ \$ \$)	€ € € € (\$ \$ \$ \$)	€ € € € (\$ \$ \$ \$)	€ € € € € € (\$ \$ \$ \$ \$ \$)

* Tested under free fall conditions, vertical ring Metal Detector

- Strong Advantage

- Best in Class

Distributed by:

All statements, technical information and recommendations contained in this publication are presented in good faith and are, as a rule, based upon tests and such tests are believed to be reliable and practical field experience. The reader, however, is cautioned, that Mitsubishi Chemical Advanced Materials does not guarantee the accuracy or completeness of this information and it is the customer's responsibility to determine the suitability of Mitsubishi Chemical Advanced Materials' products in any given application. Acetron, Nylatron, Ketron, and TIVAR are registered trademarks of the Mitsubishi Chemical Advanced Materials group of companies.

Design and content created by Mitsubishi Chemical Advanced Materials and are protected by copyright law. Copyright © Mitsubishi Chemical Advanced Materials. All rights reserved.
MCM-FP-03A | 8.27.19

