

THERMOLAST® M TM4ADT (Series: MC/AD1)
KRAIBURG TPE - Thermoplastic Elastomer
General Information
Product Description

The MC/AD1 series is your material solution for applications requiring basic medical approvals such as ISO 10993-5. The series is characterized by its adhesion properties to polar thermoplastics such as ABS, PC and PET/PETG. The compounds are available in natural colors and can be colored in many different ways. The compounds are produced exclusively on a special medical unit.

Typical applications

- Seals
- Flexible Connections
- Membranes
- Soft touch application (e.g. handles or push buttons)
- Valves

Material advantages

- Adhesion to PC, ABS, PC/ABS, ASA, SAN
- Adhesion to PET and PETG
- Adhesion to PS
- Sterilizable (autoclave 134°C, β - γ -radiation 2x35kGy, EtO)
- Soft touch surface
- Free from animal ingredients
- KRAIBURG TPE Medical Service Package
- US DMF listed
- ISCC PLUS ready (mass balance approach)

Regulations / Approvals

- US FDA CFR 21 (raw material conformity)
- VDI 2017
- ISO 10993-4 (Hemolysis)
- ISO 10993-5 (Cytotoxicity)
- ISO 10993-10 (Intracutaneous irritation)
- ISO 10993-11 (Acute systemic toxicity)
- USP <88> (Biological Reactivity, Class VI)

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Abrasion Resistant • Autoclave Sterilizable • Ethylene Oxide Sterilizable	• Good Adhesion • Good Colorability • No Animal Derived Components	• Radiation Sterilizable
Uses	• Connectors • Medical/Healthcare Applications	• Membranes • Seals	• Soft Touch Applications • Valves/Valve Parts
Agency Ratings	• FDA • ISO 10993-10	• ISO 10993-11 • ISO 10993-4	• ISO 10993-5 • USP 88 Class VI
Appearance	• Clear/Transparent		
Processing Method	• Injection Molding		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	0.940	g/cm ³	ISO 1183
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress ² (Yield)	508	psi	ISO 37
Tensile Elongation ² (Break)	500	%	ISO 37



Tear Strength ³	45.7 lbf/in	ISO 34-1
Compression Set ⁴		ISO 815
73°F, 72 hr	15 %	
158°F, 24 hr	35 %	
Hardness	Nominal Value	Unit
Shore Hardness (Shore A)	40	ISO 48-4
Additional Information	Nominal Value	Unit
Adhesion to ABS - (D) ⁵	8.6 lbf/in	VDI 2019
Adhesion to PC - (A) ⁵	4.6 lbf/in	VDI 2019
Adhesion to PETG - (A) ⁵	5.7 lbf/in	VDI 2019

Notes

¹ Typical properties: these are not to be construed as specifications.

² Type S2, 7.9 in/min

³ Method Bb, Angle (Nicked)

⁴ Method A

⁵ Two-component injection molding

