

# MEDICAL



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# TPE: ENDLESS APPLICATION POSSIBILITIES

To stay competitive in business, manufacturers and business owners must use technology advances to help them stay ahead. In recent years, the use of thermoplastic elastomers (TPEs) has seen significant increases, helping businesses explore endless product application possibilities, innovate and remain competitive.

Thermoplastic elastomers (TPEs) are as elastic as rubber and as processable as plastics. That's why today's product developers and designers choose to work with TPEs because of its extraordinary mechanical properties with high degree of transparency and colorability.

Whether for automotive, consumer and personal care, medical, industry and more – you will be able to add value to your products through our diverse and customizable line of TPE compounds. At KRAIBURG TPE, we offer you endless application possibilities with the functionality, flexibility and superiority of premium quality TPEs.

# EXACTING MEDICAL STANDARDS

Safety, quality and comfort are Prerequisites for the medical and pharmaceutical industries.

Medical product designers and manufacturers have come to rely on KRAIBURG TPE to provide technically advanced medical grade TPEs to meet a variety of critical medical requirements. KRAIBURG TPE's exclusive TPE compounds are able to be in contact with pharmaceutical mediums or blood, which will be lead into the human body or to the blood circuit. All medical compounds in the portfolio are tested according to ISO 10993-5 "Cytotoxicity".











## THERMOLAST® M

### Series MC/AD1

The MC/AD1 Series is your material solution for applications requiring basic medical approvals such as ISO 10993-5. The series is characterized by excellent adhesion properties to polar thermoplastics such as PC, ABS, PC/ABS. The compounds are produced exclusively by a special medical unit.

Compound Name	Hardness	Color	Adhesion
• TMxADT	34-73 Shore A	Natural	PC ABS PC/ABS
Typical Applications			
<ul style="list-style-type: none"><li>• Flexible Connections</li><li>• Membranes</li><li>• Seals</li><li>• Soft touch</li><li>• Valves</li></ul>			
Material Advantages			
<ul style="list-style-type: none"><li>• DMF listed</li><li>• Excellent mechanical properties</li><li>• For injection molding</li><li>• Free of animal based ingredients</li><li>• KRAIBURG TPE Medical service package (Please refer to the technical data sheet)</li><li>• Sterilizable (autoclave 134 °C, gamma radiation 2x35 kGy, EtO)</li><li>• Tested according to ISO 10993-5</li></ul>			

## THERMOLAST® M

### Series MC/HE

The MC/HE Series is your material solution for applications requiring basic medical approvals such as ISO 10993-5. The series is characterized by combining excellent elasticity with high hardness. The compounds are produced exclusively by a special medical unit and available in transparent colors.

Compound Name	Hardness	Color	Adhesion
• TMxHET	39-52 Shore D	Transparent	PP
Typical Applications			
<ul style="list-style-type: none"><li>• Drip chamber</li><li>• Luer lock</li><li>• Squeeze bottles</li></ul>			
Material Advantages			
<ul style="list-style-type: none"><li>• Adhesion to PP</li><li>• DMF listed</li><li>• Free of animal based ingredients</li><li>• High elasticity</li><li>• High stiffness</li><li>• KRAIBURG TPE Medical service package (Please refer to the technical data sheet)</li><li>• Sterilizable (autoclave 134 °C, gamma radiation 2x35 kGy, EtO)</li><li>• Tested according to ISO 10993-5</li></ul>			



Series  
**MC/LF**

The MC/LF Series is your material solution for applications requiring basic medical approvals such as ISO 10993-5. The series convinces due to its extremely low friction coefficient. The compounds are produced exclusively by a special medical unit and available in translucent colors.

Compound Name	Hardness	Color	Adhesion
• TMxLFT	29-88 Shore A	Translucent	PP
<b>Typical Applications</b>			
<ul style="list-style-type: none"> <li>• Mechanical components</li> <li>• Seals</li> <li>• Syringe gaskets</li> </ul>			
<b>Material Advantages</b>			
<ul style="list-style-type: none"> <li>• Adhesion to PP</li> <li>• DMF listed</li> <li>• Excellent mechanical properties</li> <li>• For injection molding</li> <li>• KRAIBURG TPE Medical service package (Please refer to the technical data sheet)</li> <li>• Sterilizable (autoclave 134 °C, gamma radiation 2x35 kGy, EtO)</li> <li>• Tested according to ISO 10993-5</li> </ul>			

**THERMOLAST® M**

Series  
**MC/RS**

The MC/RS Series is your material solution for applications requiring basic medical approvals such as ISO 10993-5. The series is characterized by excellent adhesion properties to polar thermoplastics such as PC, ABS, PC/ABS. The compounds are produced exclusively by a special medical unit.

Compound Name	Hardness	Color	Adhesion
• TMxRST	33-43 Shore A	Translucent	PP
<b>Typical Applications</b>			
<ul style="list-style-type: none"> <li>• Closures</li> <li>• Infusion stoppers</li> <li>• Membranes</li> </ul>			
<b>Material Advantages</b>			
<ul style="list-style-type: none"> <li>• Adhesion to PP</li> <li>• DMF listed</li> <li>• Excellent compression set</li> <li>• For injection molding and extrusion</li> <li>• Free of animal based ingredients</li> <li>• KRAIBURG TPE Medical service package (Please refer to the technical data sheet)</li> <li>• Outstanding resealing properties</li> <li>• Sterilizable (autoclave 134 °C, gamma radiation 2x35 kGy, EtO)</li> <li>• Tested according to ISO 10993-5</li> </ul>			

# THERMOLAST® M

Series  
**MC/tl**

The MC/tl Series is your material solution for applications requiring basic medical approvals such as ISO 10993-5. The compounds are produced exclusively by a special medical unit and available in translucent color.

Compound Name	Hardness	Color	Adhesion
• TMxMED	27-89 Shore A	Translucent	PP
<b>Typical Applications</b>			
<ul style="list-style-type: none"><li>• Flexible Connections</li><li>• Mouthpieces</li><li>• Seals</li><li>• Soft touch</li><li>• Valves</li></ul>			
<b>Material Advantages</b>			
<ul style="list-style-type: none"><li>• Adhesion to PP</li><li>• DMF listed</li><li>• Excellent compression set</li><li>• For injection molding and extrusion</li><li>• Free of animal based ingredients</li><li>• KRAIBURG TPE Medical service package (Please refer to the technical data sheet)</li><li>• Sterilizable (autoclave 134 °C, gamma radiation 2x35 kGy, EtO)</li><li>• Tested according to ISO 10993-5</li></ul>			



# TECHNICAL INFO AT A CLICK

Get online support by downloading our detailed KRAIBURG TPE technical data sheet(s) with processing guides and safety data sheet(s) anywhere in the world.

Follow these easy steps to download KRAIBURG TPE detailed data sheet(s):

<p><b>STEP 1:</b></p> <p>▼</p>	<p>Visit www.kraiburg-tpe.com / Scan the QR code.</p>	
<p><b>STEP 2:</b></p> <p>▼</p>	<p>Click "PRODUCT DATABASE".</p>	
<p><b>STEP 3:</b></p> <p>▼</p>	<p>COMPOUND SEARCH appears.</p> <p>Select and click your "REGION"</p>	
<p><b>STEP 4:</b></p>	<p>BEGIN SEARCHING:</p> <p>(a-i) Search Text Manually</p> <p>OR</p> <p>(a-ii) Guided Search</p> <p>AND / OR</p> <p>(b) Scroll down for "SEARCH RESULTS".</p> <p>Click on the desired series name to download the desired data sheet(s) in PDF.</p>	<div data-bbox="727 1319 1134 1473"> <p>MATERIAL - SEARCH</p> <input type="text"/>  <p>SERIES - SEARCH</p> <input type="text"/>  <p>TEXT - SEARCH</p> <input type="text"/> <p><b>SEARCH</b></p> </div> <div data-bbox="727 1541 1134 1709"> <p>MARKET - SEARCH</p> <input type="text"/>  <p>TYPICAL APPLICATIONS</p> <input type="text"/>  <p>MATERIAL ADVANTAGES</p> <input type="text"/> <p><b>SEARCH</b></p> </div> <div data-bbox="746 1778 847 1939">  <p><b>SELECT &amp; DOWNLOAD</b></p> </div>

# BRIGHTEN UP WITH COLORS

Set your products apart from the competition with KRAIBURG TPE customized color TPEs. Our TPE can be color compounded upon request, regardless of your application requirements, such as: special chemical, thermal resistance, different finishing and textures, or other exclusive properties. We will strive to fulfill your request in the most economic and optimal way possible, and assure a worldwide consistent color quality.

## “ Comprehensive Solution!

Impress your customer and score with an appealing design and the perfect color. ”





# BRING YOUR IDEAS TO LIFE

Every now and then, you may come across an idea that may help make your products requiring TPEs better and more commercially viable. Share your ideas with us and we'll help you add value at each critical stage of the product development process to help you save time, money and introduce a better product to the market quickly and successfully! From mold structure design idea, TPE specifications to customization - we'll help bring your ideas to life!

**“ Got An Idea! ”**



# OUR STANDARDS OF EXCELLENCE

KRAIBURG TPE prides itself as a company that pursues quality, innovation and excellence at all levels. This quality management approach enables us to assure the quality requirements for both the applications and the customers – exceeding high standards of safety, quality and reliability. We will also continue to develop innovative products and continuously improve our performance, as all our employees are fully dedicated to the highest standards of:

## QUALITY MANAGEMENT SYSTEM

complying with the requirements of standard  
**ISO 9001**

## ENVIRONMENTAL MANAGEMENT SYSTEM

complying with the requirements of standard  
**ISO 14001**

## ENERGY MANAGEMENT SYSTEM

complying with the requirements of standard  
**ISO 50001**





# CARING YOU & ME

The importance of environmental conservation is a topic we are actively conscious about. KRAIBURG TPE takes important measures to ensure that our thermoplastic elastomers (TPEs) can be recycled nearly up to 100%. This allows us to melt down the thermoplastic elastomers again and again - saving on material use and ultimately, preserving the environment.

We have also initiated a landmark "CARING YOU & ME" initiative around the Asia Pacific region to make a difference in our lives. Our theme adopts a caring approach towards environment conservation and preservation, and towards our employees' health and safety concerns (EHS). Our goal is to work towards better environment preservation, health and safety while simultaneously maintaining harmony with nature in all our global operation activities.





# MEDICAL

Revolutionize unique innovations in medical technologies with our wide scope of approved medical compound series. Our sterilizable material is free of PVC, latex and silicone and stands for an excellent material performance and more!



## Headquarters: Germany

### Production Sites:

#### **EMEA: Waldkraiburg, Germany**

KRAIBURG TPE GmbH & Co. KG

E-Mail: [info@kraiburg-tpe.com](mailto:info@kraiburg-tpe.com)

#### **AMERICAS: Atlanta, USA**

KRAIBURG TPE Corporation

E-Mail: [info-americas@kraiburg-tpe.com](mailto:info-americas@kraiburg-tpe.com)

#### **ASIA PACIFIC: Kuala Lumpur, Malaysia**

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In further countries KRAIBURG TPE is represented by sales offices and distributors.

## [www.kraiburg-tpe.com](http://www.kraiburg-tpe.com)

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