



THERMOPLASTIC ELASTOMERS

FOR MEDICAL DEVICES

- ▶ Medical grade TPE compounds pre-tested to ISO 10993 biocompatibility standards
- ▶ Custom engineered TPE alloys designed for specific properties/performance
- ▶ Six TPE chemistries available: TEO, SEBS, TPV, TPU, COPE, PEBA

KEY BENEFITS

- Statement of ISO 10993 biocompatibility available
- Medical TPE products are BPA, PVC, Latex, and ADM free
- Gamma and EtO sterilization resistant
- Precolored and clear grades available
- Overmoldable to rigid substrates
- Global availability

Imagine a TPE compounder that could support your medical device development needs from virtually every angle. From standard products that are pre-tested to ISO 10993 biocompatibility standards to custom and highly functionalized TPEs that are formulated to dissipate static electricity, provide radiopacity, or lower sliding friction force. At RTP Company we not only imagined it, we made it a reality.

At RTP Company, we have structured our TPE product line to give the medical device design engineer ultimate flexibility. Our line of standard products provides time-tested performance in an array of devices, while our experienced R&D group is able to custom formulate unique TPE alloys and incorporate functional additives in support of your most demanding product developments.

RTP Company offers medical grade TPE compounds which have been pre-tested by an outside lab to meet ISO 10993 biocompatibility standards, including requirements for **cytotoxicity (part 5)**, **irritation and delayed type hypersensitivity (part 10)**, and **systemic toxicity (part 11)**.

RTP 2700 S MD series materials are highly elastic TPE compounds available in a hardness range from 30 to 80 Shore A. These materials have excellent room temperature elastomeric performance, are translucent, bond to polypropylene, provide excellent tactile feel, and are available in natural or biocompatible precolors.

RTP 6003 MD and RTP 6042 MD series materials have been specifically designed to bond to ABS, PC, PC alloys, PBT, rigid TPU, or copolyester substrates via overmolding. RTP 6003 MD materials provide very good functional elastic properties, while RTP 6042 MD materials provide excellent feel combined with strong tensile and tear strength. These materials are available in a hardness range from 40 to 75 Shore A, either in natural or as a pre-tested ISO 10993 biocompatible precolor.

Our MD series products are backed by a statement of biocompatibility allowing designers to demonstrate a pattern of concern for safety to regulatory bodies globally.

Thermoplastic elastomers for medical devices...another innovation from RTP Company: your global compounder of custom engineered thermoplastics.



Prosthetic fingers overmolded with TPE



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FOR MEDICAL DEVICES

RTP Company MD Series Medical Grade TPE Products

RTP 2700 S MD Series Medical Grade TPE					
Highly Elastic, Polypropylene Bondable					
GRADE	HARDNESS	TENSILE STRENGTH	TEAR STRENGTH	TENSILE ELONGATION	CLARITY
RTP 2700 S-30A MD	30A	5 MPa	20.2 N/mm	700%	Translucent
RTP 2700 S-40A MD	40A	6 MPa	23.7 N/mm	700%	Translucent
RTP 2700 S-50A MD	50A	8 MPa	25.4 N/mm	700%	Translucent
RTP 2700 S-60A MD	60A	8 MPa	35.0 N/mm	700%	Translucent
RTP 2700 S-70A MD	70A	10 MPa	43.8 N/mm	700%	Translucent
RTP 2700 S-80A MD	80A	11 MPa	45.6 N/mm	700%	Translucent
ASTM	D 2240	D 412	D 624	D 412	

RTP 6003 & 6042 MD Series Medical Grade TPE					
Excellent bonding to ABS, PC, PC Alloys, PBT, RTPU					
GRADE	HARDNESS	TENSILE STRENGTH	TEAR STRENGTH	TENSILE ELONGATION	CLARITY
RTP 6003-45A MD	44A	7 MPa	24.5 N/mm	1100%	Opaque
RTP 6003-55A MD	55A	6 MPa	30.7 N/mm	1000%	Opaque
RTP 6003-75A MD	75A	6 MPa	43.8 N/mm	850%	Opaque
RTP 6042-40A MD	40A	6 MPa	22.8 N/mm	500%	Opaque
RTP 6042-50A MD	50A	8 MPa	26.3 N/mm	500%	Opaque
RTP 6042-60A MD	60A	8 MPa	33.3 N/mm	500%	Opaque
RTP 6042-70A MD	70A	14 MPa	46.4 N/mm	500%	Opaque
ASTM	D 2240	D 412	D 624	D 412	

Formulation Control

RTP Company has established a No Substitution policy applicable to all MD series grades and also upon request at the beginning of the custom formulation process.

Using our ISO 9001 quality system procedure we can ensure that your MD series and no substitution formulation is maintained by using a specific nomenclature that signifies that no raw material changes or substitutions are allowed unless authorized.

Change Management

Should a need to change your formulation occur, RTP Company will assist you with raw material alternatives, building inventory to cover current needs, and other options to manage the change.

RTP Company: Your Global Compounder Of Custom Engineered Thermoplastics

No information supplied by RTP Company constitutes a warranty regarding product performance or use. Any information regarding performance or use is only offered as suggestion for investigation for use, based upon RTP Company or other customer experience. RTP Company makes no warranties, expressed or implied, concerning the suitability or fitness of any of its products for any particular purpose. It is the responsibility of the customer to determine that the product is safe, lawful and technically suitable for the intended use. The disclosure of information herein is not a license to operate under, or a recommendation to infringe any patents.

Custom Engineered TPE Materials

When your application calls for a custom engineered elastomeric material, RTP Company's engineers can formulate a custom compound to meet your needs.

TPE Alloys for specific property sets including:

- Elasticity
- Feel (tacky to silky)
- Strength
- Chemical resistance
- Unique processing methods

Functional Additives for:

- Radiopacity
- Antimicrobial protection
- Laser-marking
- Conductive properties