



THERMOPLASTIC ELASTOMERS FOR MEDICAL DEVICES

THERMOPLASTIC ELASTOMER

FEATURES

- Five TPE chemistries available: TEO, SEBS, TPU, COPE, PEBA
- Gamma and EtO sterilization resistant
- Products free of BPA, PVC, Latex, and ADM
- Precolored and clear grades available
- Biocompatibility available

BENEFITS

- Custom engineered alloys specifically designed for your application's performance requirements
- Overmoldable to rigid substrates
- Global availability



Prosthetic fingers from Partial Hand Solutions use an RTP Company compound of RTP 2300 Series glass-filled rigid thermoplastic polyurethane for the inner structure of the fingers and multi-position thumb, which are then overmolded with an RTP 1200 Series thermoplastic polyurethane elastomer.

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 as a pre-tested ISO 10993 biocompatible precolor.

Polabond® 6003 MD and Polabond® 6042 MD series materials have been specifically designed to bond to ABS, PC, PC alloys, PBT, rigid TPU, or copolyester substrates via overmolding. Polabond® 6003 MD materials provide very good functional elastic properties, while Polabond® 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 gain a higher level of confidence that applications using these will meet global safety and regulatory requirements.

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

Polabond® is a Registered trademark of RTP Company.

For more information:
[www.rtpcompany.com/
 markets/healthcare/medical_
 thermoplastic-elastomers/](http://www.rtpcompany.com/markets/healthcare/medical_thermoplastic-elastomers/)



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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	

Polabond® 6003 & Polabond® 6042 MD Series Medical Grade TPE Excellent bonding to ABS, PC, PC Alloys, PBT, RTPU					
Grade	Hardness	Tensile Strength	Tear Strength	Tensile Elongation	Clarity
Polabond® 6003-45A MD	44A	7 MPa	24.5 N/mm	1100%	Opaque
Polabond® 6003-55A MD	55A	6 MPa	30.7 N/mm	1000%	Opaque
Polabond® 6003-75A MD	75A	6 MPa	43.8 N/mm	850%	Opaque
Polabond® 6042-40A MD	40A	6 MPa	22.8 N/mm	500%	Opaque
Polabond® 6042-50A MD	50A	8 MPa	26.3 N/mm	500%	Opaque
Polabond® 6042-70A MD	60A	8 MPa	33.3 N/mm	500%	Opaque
Polabond® 6042-70A MD	70A	14 MPa	46.4 N/mm	500%	Opaque
ASTM	D 2240	D 412	D 624	D 412	

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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-making
- Conductive properties



RTP COMPANY: YOUR GLOBAL COMPOUNDER OF CUSTOM ENGINEERED THERMOPLASTICS

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