



Thermoplastic Elastomers

Flexible, Durable, Tactile Solutions
for Rubber-like Performance



Thermoplastic Elastomers

Thermoplastic elastomers, or TPEs, are a diverse family of rubber-like materials that can be processed and recycled like thermoplastic materials. TPEs are unique in three ways:



They can be **stretched**



They are **melt processable** at elevated temperatures



They **spring back** into form, so there is **no significant creep**

RTP Company provides TPE solutions ranging from off-the-shelf resins to complex custom compounds. Whether your application requires a soft, tactile feel or tough, durable performance, our TPE products can be compounded to include a variety of other desirable properties. Our engineers are passionate about finding solutions that fit your application requirements and budget.



Contact us, scan our code, or visit www.rtpcompany.com to get your project started today!



PORTFOLIO

RTP 2700 Series

- SBCs
- RTP 2700 S
- RTP 2740 S
- RTP 2799 S X

Bondable TPEs

- NylaBond® 6091
- NylaBond® 7091
- PolaBond® 6041
- PolaBond® 6042

RTPrene®

- RTPrene® G Series
- RTPrene® M Series
- RTPrene® K Series
- RTPrene® custom

Specialty TPEs

- Custom colors
- Wear/Friction Resistance
- Flame Retardant

RTP 2700 SERIES

SBC Based Thermoplastic Elastomers

RTP 2700 S

RTP 2700 series TPEs are commonly used in a myriad of familiar everyday items, from the soft grip on your pen or razor to the protective “rubberized” case on your smartphone. Highly colorable, translucent RTP 2700 S materials are available in variations ranging from extremely soft and elastic to grades bordering on semi-rigid. RTP 2700 Series grades are overmold-bondable to polypropylene substrates.

RTP 2740 S

RTP 2740 S compounds offer the same range of hardnesses in a budget conscious, opaque natural or black. These proven off-the-shelf materials offer solutions for many common applications, with plaques and trial quantities on-hand to allow us to service customers with immediate samples. RTP 2740 series grades are bondable to polypropylene substrates.



For technical data, visit:
www.rtpcompany.com/products/elastomer

NYLABOND®

Performance TPE for Nylon Overmolding



Nylabond® 7091

Our Nylabond® 7091 Series is formulated to handle long-term exposure to high temperatures and fluid immersion, making them some of the world's highest performing thermoplastic elastomers. Nylabond® 7091 can withstand long-term exposure to the most aggressive automotive fluids – engine oil, transmission fluid, and lubricating greases – for the life of the vehicle, even when those fluids are hot. Developed for easy thermoplastic processing, including blow molding, injection molding, and overmolding, Nylabond® 7091 materials suit a wide range of applications, including automotive boots, transmission components, exclusion seals, air intake ducts and change-air cooler ducts, as well as vibration isolators and mounts. Nylabond® 7091 materials are available in black free-flow pellets packaged in 50 lb.(22.7kg) moisture-barrier bags.

Nylabond® 6091

TPV-based Nylabond® 6091 series materials set the standard for performance in nylon two-shot injection applications. Available in hardnesses ranging from 55A to 85A, they are commonly used in automotive, transportation, and demanding industrial applications. These materials not only provide strong adhesion to nylon substrates, but also offer excellent weatherability and both high and low temperature performance. Nylabond® 6091 materials carry a wide range of global automotive approvals, which demonstrate their long-term performance capability and also simplifies PPAP submissions. Nylabond® 6091 materials are stocked for immediate availability in both natural and black.

Automotive Approvals

- GMW 15817 Type 1
- GMW 15817 Type 2
- MSAR* 100 AAN
- MSAR* 100 BAN
- MSAR* 100 CAN
- VW 50123 Conformance
- Daimler DBL552-30 Conformance
- SAE J200 callouts
- ASTM D4000 callouts

** The MSAR specifications are Stellantis*

For technical data, visit:

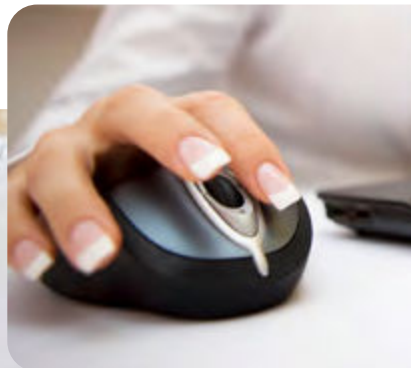
www.rtpcompany.com/nylabond

POLABOND®

Performance TPE for Overmolding

Polabond® 6041

Polabond® 6041 series materials bring the performance of TPVs to polar substrate overmolding. In addition to providing excellent overmold adhesion to Polycarbonate, ABS, PC/ABS, RTPU, and PMMA, these materials also exhibit a highly desirable rubber-like tactile feel. This combination of features explains why Polabond® 6041 products are commonly used in hand tools, hand-held electronics, sporting goods, and a wide range of other soft-touch consumer items. Due to their TPV-based chemistry, they excel in applications where chemical and oil resistance, weatherability, and property retention at high temperatures are critical. Polabond® 6041 materials are available in an easily colorable off-white natural, as well as in black.



Polabond® 6042

Based on a unique alloy technology, Polabond® 6042 series materials are available in durometers from 40A to 80A and provide exceptional durability and mechanical properties mated with extremely robust bonding to polar substrates. Available in both black and an easy-to-color natural, these materials are well suited for use in hand tools, hand held medical devices, LED lighting applications, and consumer electronics utilizing overmold water-proofing and/or integrated push buttons. Polabond® 6042 MD materials have been pre-tested to ISO 10993 and provide an excellent option for various healthcare applications requiring a soft touch feel or “rubber armor”.



For technical data, visit:
www.rtpcompany.com/polabond

RTPRENE®

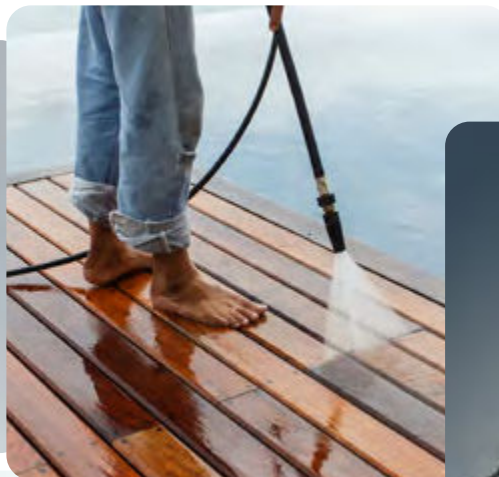
TPV-Based Thermoplastic Elastomers

RTPrene® Series

RTPrene® is a fully vulcanized thermoplastic rubber material that is easy to process, lightweight, and resistant to wear and tear. With the lowest compression set in the industry, RTPrene® offers superior elasticity and long-term sealing performance

Due to its ability to withstand chemicals, UV rays, and extreme temperatures, RTPrene® is an ideal choice for applications that require excellent performance in harsh environments. Key benefits include:

- Durability, with high resistance to wear and tear
- Flexibility, for applications that require deflection or sealing
- Chemical and UV resistance
- Easy processing for design freedom, even for complex shapes and parts



RTPrene® G Series

The RTPrene® G Series includes general purpose TPV materials ranging from 35A to 50D Shore Hardness, and is available in natural color or black.

RTPrene® M Series

For high performance extrusion and UV resistant applications, the RTPrene® M Series can't be beat! These TPV materials range from 55A to 50D hardness, and are available in black.

RTPrene® K Series

The RTPrene® K Series is a general purpose TPV with UV resistance, ranging from 55A to 50D Shore Hardness. These materials are available in black.

For technical data, visit:

www.rtpcompany.com/rtprene

SPECIALTY TPEs

Core Technology Thermoplastic Elastomers

Technology Overview

RTP Company is well-established in specialty thermoplastic custom compounding, with experience that goes back more than 30 years. The core additive technologies being driven by our Structural, Conductive, Flame Retardant, Color, and Wear Resistant business units also lend themselves to very unique capabilities in Thermoplastic Elastomer (TPE) resin systems. Our engineering teams work collaboratively across product groups to apply this expertise into multiple TPE-based technologies, including PEBA, COPE, TPU, RTPU, TPV, SBC, and POE, making RTP Company the undisputed industry leader in functional additive-based thermoplastic elastomers.

Application Examples

The markets and applications that derive value from specialty TPEs are incredibly broad. Long Fiber reinforced RTPU performs in ultra-tough agriculture equipment and sporting goods, while Static Dissipative TPEs are used in areas where explosive conditions may exist. Radio-Opaque PEBA compounds are widely used in medical catheters, and flame retardant bondable TPEs are used in photovoltaic roof systems. Highly conductive TPV is used for pinch safety activation on automotive sunroofs; flame retardant precolored TPVs and TPUs fill a variety of needs in telecom from strain reliefs to cable glands; and the list goes on. If you have a need for a uniquely functional TPE, there is a good chance that RTP Company can develop it!



For technical data, visit:
www.rtpcompany.com/specialty-TPEs



**Your Global Compounder of
Custom Engineered Thermoplastics**

RTP COMPANY THERMOPLASTIC TECHNOLOGIES



COLOR

We offer precolored resins, UniColor[®], Masterbatches (including Color Conduit), and cube blends for plastic parts ranging from automotive to rocket components and medical devices to toothbrush handles. Our Hueforia color experts provide color selection advice and precise custom color matching services.



CONDUCTIVE

We offer compounds for electrostatic discharge (ESD) protection, thermal management, EMI shielding, or PermaStat[®] permanent anti-static protection. Available in particulate and all polymeric-based materials, these compounds can be colored as well.



FLAME RETARDANT

Whether you are developing a new product or need to reformulate due to ever-changing regulations, we can custom engineer a flame retardant material with the exact properties you require.



HIGH TEMPERATURE

We formulate our high temperature compounds precisely to retain their performance properties, provide better dimensional stability, and offer excellent electrical characteristics in continuous-use high temperatures.



LONG GLASS FIBER

As pioneers in developing a proprietary pultrusion process, we've perfected the manufacturing of our Long Glass Fiber (LGF) Compounds. These pellets encapsulate long fibers for superior strength, stiffness and impact resistance, making them ideal for metal



STRUCTURAL

Our reinforced Structural Compounds are formulated to increase strength and stiffness, and provide resistance to impact, creep, and/or fatigue. These materials can be customized to meet cost and performance targets.



TPE

Our thermoplastic elastomers provide rubber-like performance with the processing benefits of thermoplastic resin. Our portfolio ranges from standard, in-stock resins to custom compounds designed to meet your specifications.



TPO

For stiff, lightweight, and impact resistant material, our Thermoplastic Polyolefins are your solution, providing excellent low temperature ductility, as well as UV- and scratch/mar-resistance.



WEAR RESISTANT

Our wear resistant thermoplastic compounds can incorporate internal lubricants to reduce wear and friction, thereby lengthening the service life of your application and reducing your processing costs.



ENGINEERED SHEET

We're your one-stop-shop for thermoplastic sheet. We can offer you a unique material, designed with these technologies and extruded to meet your exact sizing requirements.



FILM – WIMAN

Through our sister company, Wiman Corporation, we

No information supplied by RTP Company constitutes a warranty regarding product performance or use. Any information regarding performance or use is only offered as a 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 on any patents.

Copyright 2024 RTP Company, 04/2024

Please contact your local RTP Company Sales Engineer by calling **1-507-454-6900** or **1-800-433-4787** (U.S. only), by email at rtp@rtpcompany.com, or visit www.rtpcompany.com



RTP Company Corporate Headquarters • 580 East Front Street • Winona, Minnesota 55987 USA website: www.rtpcompany.com • email: rtp@rtpcompany.com

TELEPHONE:	U.S.A. +1 507-454-6900	SOUTH AMERICA +55 11 4193-8772	MEXICO +52 81 8134-0403	EUROPE +33 380-253-000	SINGAPORE +65 6863-6580	CHINA +86 512-6283-8383	WIMAN CORPORATION +1 320-259-2554
------------	---------------------------	-----------------------------------	----------------------------	---------------------------	----------------------------	----------------------------	--------------------------------------



www.rtpcompany.com