

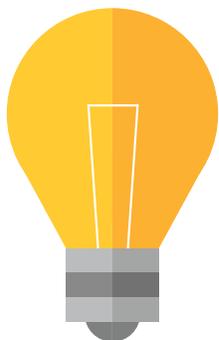


# TPE PRODUCT OVERVIEW

Thermoplastic Elastomers

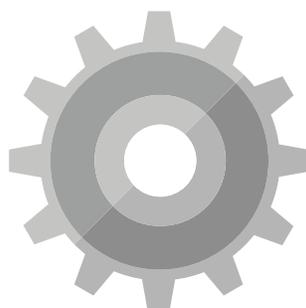
# Commitment to CUSTOMER VALUE

RTP Company's TPE Division has a singular focus on delivering customer value through our core commitments:



## SOLUTIONS

We provide 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.



## CUSTOMIZATION

Does your project require something outside of the norm? Our history and expertise gives us some of the strongest custom compounding capability in the industry. Collaboration and communication are the cornerstones of successful development, and we make the process easy by combining local support with a centralized product team that is dedicated to TPEs.



## SERVICE

Customers like you are what drive our business. We pride ourselves on being big enough to compete with anyone, anywhere, without sacrificing the individual attention that is critical to launching successful programs. We strive to meet our commitments, and to provide straight-forward advice and recommendations – even if they don't fit into our product line.

### RTP 2700 Series SEBS

RTP 2700S  
RTP 2740S  
RTP 2700 Series C  
- (custom)

### Permaprene™ TPV

Permaprene™ 2800B  
Permaprene™ 2840B  
Permaprene™ C  
- (custom)

### Bondable TPE

Polabond™ 6041  
Polabond™ 6042  
Nylabond™ 6091  
Nylabond™ 6092

### Specialty TPE

Custom Colors  
Wear and Friction  
Flame Retardant  
Conductives



# RTP 2700 SERIES

## SBC Based Thermoplastic Elastomers

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### RTP 2700S and RTP 2740S

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 2700S materials are available in variations ranging from extremely soft and elastic to grades bordering on semi-rigid. RTP 2740S compounds offer the same range of hardnesses in a budget conscious, off-white 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 2700 Series grades are overmold-bondable to polypropylene substrates.

For technical data, visit:  
[www.rtpcompany.com/products/elastomer](http://www.rtpcompany.com/products/elastomer)

### RTP 2700 Series C

Whether it's a new and novel material concept to drive part functionality or simply reducing part cost to give you a competitive edge, innovation drives value in the market. RTP 2700 Series C opens up countless possibilities, including:

- tailored physical properties
- modification for clarity
- customized surface feel
- increased or decreased elasticity
- food contact compliance
- ISO 10993 medical

With a huge variety of SBC inputs at their disposal, our dedicated TPE engineers can custom formulate to a wide variety of end use requirements. Our collaborative, customer-focused development approach enables us to identify and solve potential problems on paper before expensive trialing and testing occur, thereby positioning your application for success!



# PERMAPRENE™

## TPV-Based Thermoplastic Elastomers

### Permaprene™ 2800B and Permaprene™ 2840B

Permaprene™ materials utilize Thermoplastic Vulcanizate (TPV) technology and are designed for use in technically challenging industrial, transportation, and durable goods applications. At the top of the performance spectrum are Permaprene™ 2800B materials. Available in hardnesses ranging from 45A to 50D, these materials exhibit superior chemical resistance, weatherability, temperature resistance, and compression set relative to other TPEs. Budget-friendly Permaprene™ 2840B materials maintain the chemical resistance of TPV technology, and also provide excellent hand feel and durability in applications where high temperature performance is not critical. Permaprene™ materials are stocked in both natural and black colors, and are overmold-bondable to polypropylene substrates.

### Permaprene™ C

Keeping with RTP Company's expertise in materials engineering and custom compounding, Permaprene™ C materials are custom-formulated to your specific requirements. This technology lends itself well to alloying and can be tailored for:

- Specific physical properties
- Color and UV resistance
- Surface feel
- Elasticity
- Processability/Viscosity
- FDA and food contact

Permaprene™ C custom formulations leverage the benefits of TPV in a way that is unique in the market, and reflect true cooperative innovation between RTP Company and our customers. Our development process is designed to foster understanding of the technical, manufacturing, and commercial requirements of your application so we can choose a design path that maximizes the opportunity for success.

For technical data, visit:  
[www.rtpcompany.com/permaprene](http://www.rtpcompany.com/permaprene)



# NYLABOND™

## Performance TPE for Nylon Overmolding

### Nylabond™ 6091

TPV based Nylabond™ 6091 series materials set the standard for performance in nylon overmolding 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 exhibit excellent chemical and oil resistance, weatherability, and high and low temperature performance. Nylabond™ 6091 materials carry a wide range of global automotive approvals, demonstrating their long-term performance capability and also simplifying 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 Fiat-Chrysler*

For technical data, visit:  
[www.rtpcompany.com/nylabond](http://www.rtpcompany.com/nylabond)



# POLABOND™

## Performance TPE for Overmolding

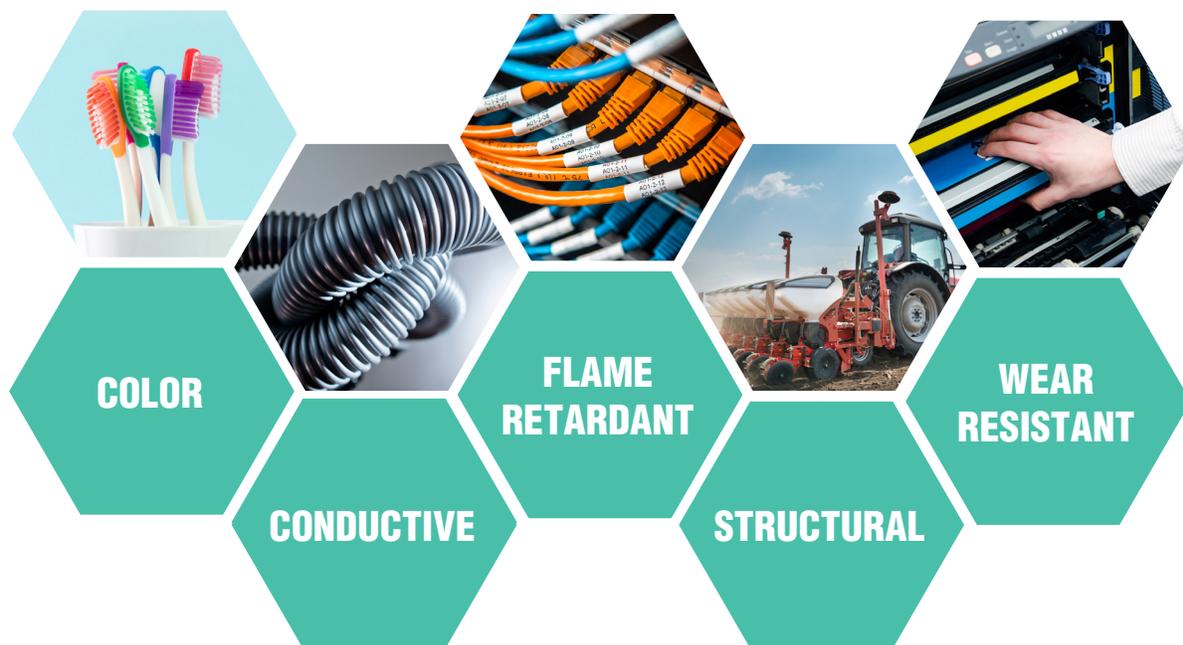
### Polabond™ 6041

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 waterproofing 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](http://www.rtpcompany.com/polabond)



# 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 – or already has!

For technical data, visit:  
[www.rtpcompany.com/specialtyTPEs](http://www.rtpcompany.com/specialtyTPEs)

# RTP CO. Product Groups

RTP Company is committed to providing you with solutions, customization, and service for all of your thermoplastic needs. We offer a wide range of technologies available in pellet, sheet, and film that are designed to meet even your most challenging application requirements.

## COLOR

Color inspires, energizes, and builds brand recognition, and choosing the right supplier is as important as selecting the right color. We offer color technology options in standard precolored resins or custom compounds, UniColor™ Masterbatches, or cube blends.

## CONDUCTIVE

We offer compounds for electrostatic discharge (ESD) protection, 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.

## STRUCTURAL

Our reinforced structural compounds can increase strength, stiffness, and provide resistance to impact, creep and fatigue. Ideal for metal or other material replacement, our formulas can be customized to meet cost and performance targets.

## TPE

Our thermoplastic elastomers provide rubber-like performance with the processing benefits of thermoplastic resin. We offer a wide range of options, from standard, in-stock resins to custom compounds designed to meet your specifications.

## 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.



RTP Company Corporate Headquarters • 580 East Front Street • Winona, Minnesota 55987 USA website: [www.rtpcompany.com](http://www.rtpcompany.com) • email: [rtp@rtpcompany.com](mailto: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	ESP™ +1 800-432-2386
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