

ENGI-
NEERING
LIFE

**TPE SOLUTIONS FOR
MEDICAL INDUSTRY**





**Everyday Life
Engineering
Partner of
Global TPE Users**

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LIFE



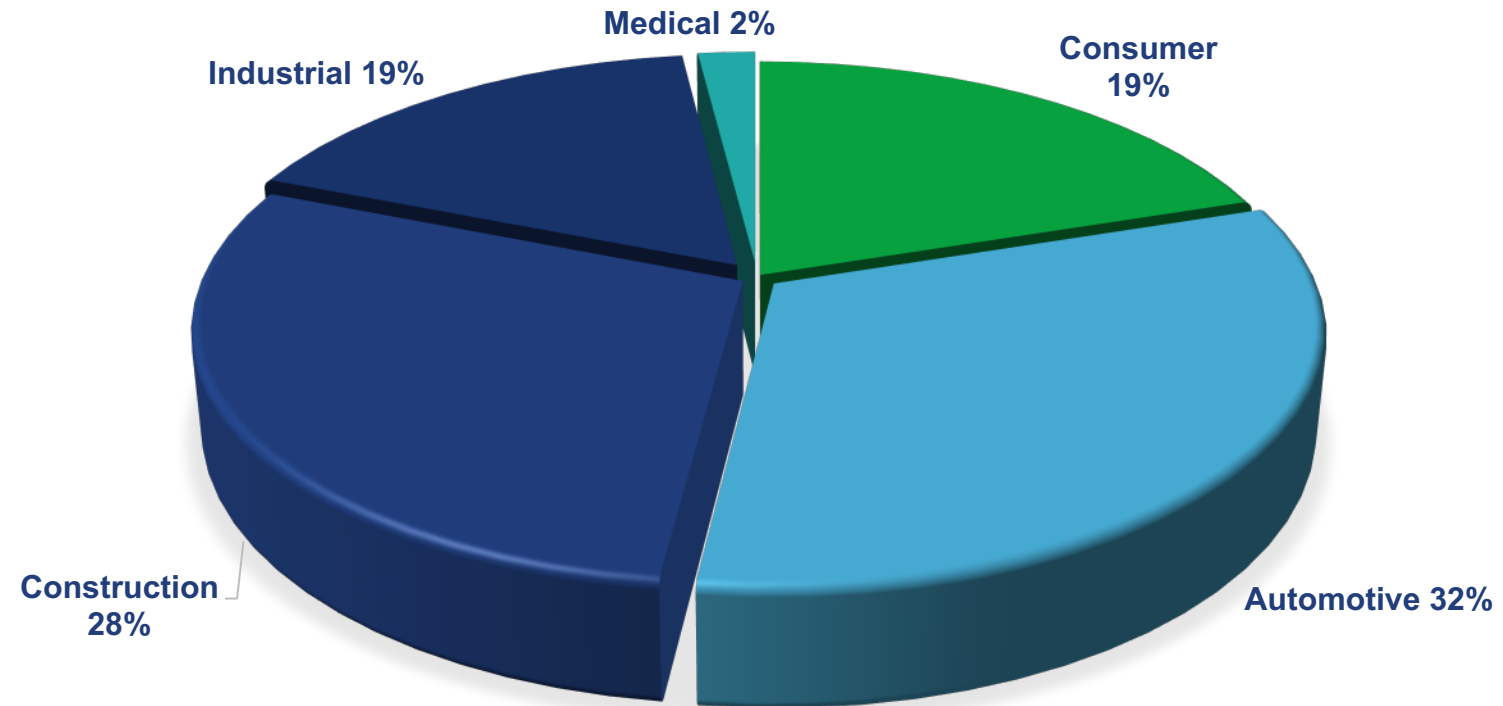
MARKETS





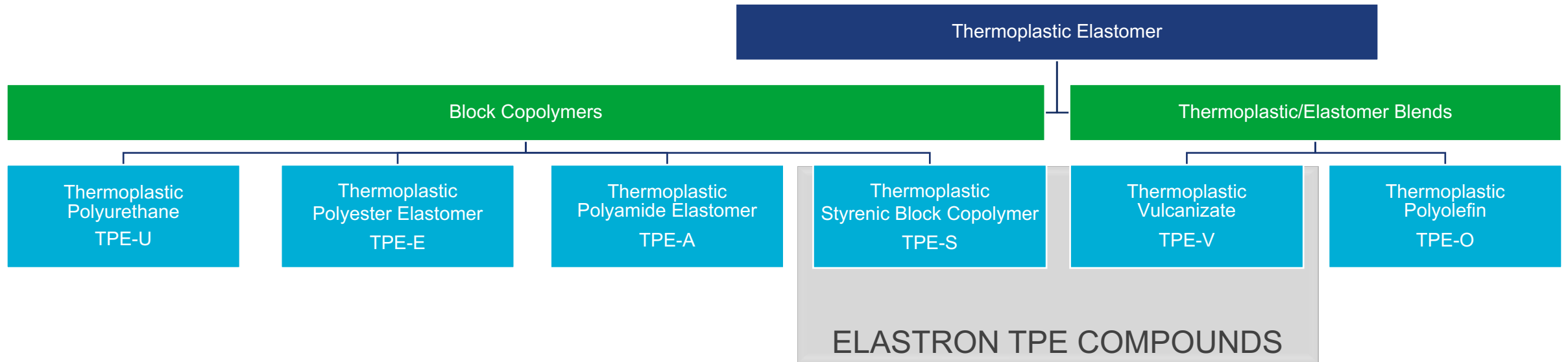
Market Sales Distribution

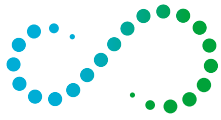
Markets	Percentage Distribution
Automotive	32%
Construction	28%
Consumer Goods	19%
Industrial	19%
Medical	2%





Thermoplastic elastomers are a group of rubber-like materials that, unlike vulcanized conventional rubber materials, can be processed and recycled like thermoplastic materials. Thermoplastic Elastomers do not require curing or vulcanization during processing and can be processed by traditional thermoplastic processing equipment.





Easy Coloring



Recyclability



Temperature Resistance



Weathering Resistance



Wide Hardness Range



Flexibility



Elasticity



Recovery

	Elastron G	Elastron V	Elastron D
Structure	SEBS/PP based TPE compounds	Crosslinked TPE compounds	SBS/PP based TPE compounds
Hardness (Shore A/D)	12 A - 65 D	30 A - 65 D	20 A - 65 D
Density (g/cm³)	Min. 0.88	Min. 0.90	Min. 0.89
Compression Set	Good	Very Good	Medium
Elasticity	High	Very High	Medium
Service Temperature (°C)	-50°C to 120°C	-50°C to 135°C	-50°C to 70°C
UV Resistance	Good	Good	Poor
Organic Solvent Resistance	Variable	Variable	Poor
Acid-Base Resistance	Good	Good	Good
Adhesion (Standard grades)	PP, PE, EVA	PP, PE, EVA	PP, PE, EVA
Adhesion (Bondable grades)	ABS, PC, PC/ABS, PBT, PETG, ASA, SAN, PMMA, PET, PA6/6.6, PS, HIPS, EPDM	EPDM	PS



General Purpose Grades

- Multi-purpose TPE-S and TPV compounds
- Various series lightweight to high density
- Extrusion grades to high flow grades
- **G100 – V100 Series**
- **G101 – V101 Series**

Special Grades Conforming Various Regulations

- NSF/ANSI 61
- EU 10/2011
- FDA 21 CFR
- USP CLASS VI
- **F.G & F.V**
- **P.G & P.V series**
- **V281 Series**

High Temperature Resistant Grades

- Excellent long-term performance at high temperatures for sealing applications
- **G201 – V201 Series**

High Flow Grades

- Low viscosity
- Easy filling of complex molds
- Long term performance for outdoor applications
- **G150 – G104 Series**

Non-Hygroscopic TPVs

- Non-hygroscopic TPVs where good sealing properties and surface appearance are important
- **V860 – V861 Series**

Bondable Grades

- PA, ABS, PC, PS and ABS/PC bondable grades for polar plastics to obtain soft touch property
- **G500 – PA/ABS/PS Series**
- **V510 – G510 – EM Series**

Weatherseal Grades

- Excellent long-term performance for outdoor applications
- **G250 – V250 – G260 Series**
- **V251 – G261 Series**

Flame Retardant Grades

- UL 94 V0 listed grades
- Low smoke density
- V1 – V2 grades
- HFFR – FR grades
- **G601 – V601 HFRR Series**
- **G611 – V611 FR Series**

Low Coefficient for Friction Grades

- Low friction for semi-dynamic applications
- **V216 – V206 Series**

Impact Modifiers for

- PP
- HDPE
- ABS
- PC
- PS
- PA



Elastron medical TPE compounds meet special needs of various medical device applications.

MEDICAL



Elastron TPE Grades for Medical Applications

Elastron medical TPE compounds meet various medical device applications' unique needs with biocompatibility while promoting sustainability through eco-friendly production.

Elastron TPE grades are recyclable, easy to color with masterbatches and have excellent surface appearance.

Elastron offers added value with a wide range of high-quality TPE compounds to designers and producers of medical devices by providing design flexibility, easy and faster processing.





Key Features of Elastron TPE Grades for Medical Applications



Material Properties

- Suitable for sterilization
 - Gamma radiation
 - Steam sterilization
 - EtO
- Good compression set
- Good chemical resistance
- Weight reduction



Design

- Co-extrusion and over molding on to polyolefins
- Natural, black, pre-colored
- Colorable with masterbatch
- Design flexibility
- Dimensional stability



Processing

- Suitable for co-extrusion
- Suitable for co-injection
- Lower energy consumption
- Short processing cycle time
- No curing required
- No scrap



Safety & Regulation

- USP <88>, <87>
- ISO 10993-5
- Regulation (EU) No.10/2011
- FDA 21 CFR (Raw material Conformity)
- Free from:
 - Animal Derivates
 - Heavy Metals
 - Bisphenol A
 - PVC
 - Latex
 - Silicone
 - Nitrosamine



Sustainability

- Recyclability
- LCA data
- Reducing of CO₂ emission



Segments & Highlighted Applications

Medical Tips & Gaskets

- Infusion Bottle Caps
- Syringe Gaskets

Medical Equipment & Devices

- Dental Guard for Bruxism Disease
- Peristaltic Pump Tubes
- Urine Catheter Grips

Medical Footwear

- Hospital Clogs

Disposable Medical Goods

- Brush of Throat Swabs





Medical Tips & Gasket

Syringe Gaskets

- P.V101.A40.B
- P.V101.A60.B
- P.V101.D40.N
- P.G401.A60.B

Infusion Bottle Caps

- P.V101.A90.N
- P.V101.A60.N
- P.G401.A30.N
- P.G401.A40.N
- P.G401.A60.N
- P.G400.A65.N

Key Features

- ✓ Suitable for sterilization (121°C & 134°C)
- ✓ Biocompatible
- ✓ USP Class VI Approval
- ✓ Excellent Sealing Property
- ✓ Self-Sealing





Medical Equipment & Devices

Dental Guard for Bruxism Disease

- G901.A40.T

Peristaltic Pump Tube

- P.V101.A65.N
- P.V101.A60.001

Key Features

- ✓ Good Elastic Recovery
- ✓ Dimensional Stability
- ✓ Weight Reduction
- ✓ Soft Touch Feeling
- ✓ Abrasion Resistance

Urine Catheter Grips

- P.G400.A65.N
- P.G400.A65.501
- P.V101.A60.N





Medical Footwear

Hospital Clogs

- G418.A60.N
- G300.A57.N.A

Key Features

- ✓ Electrical Resistance 100M Ω measured ISO 20344
- ✓ High Flow Grades
- ✓ Abrasion Resistance





Disposable Medical Goods

Brush of Throat Swab

- P.G400.A52.T

Key Features

- ✔ Soft and Flexible
- ✔ Safe Usage
- ✔ Skin Friendly
- ✔ Good Elastic Recovery
- ✔ Adhesion to Polyolefins





Find out more about your
TPE solutions partner now.

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