

ENGI-
NEERING
LIFE

TPE SOLUTIONS FOR
CONSUMER





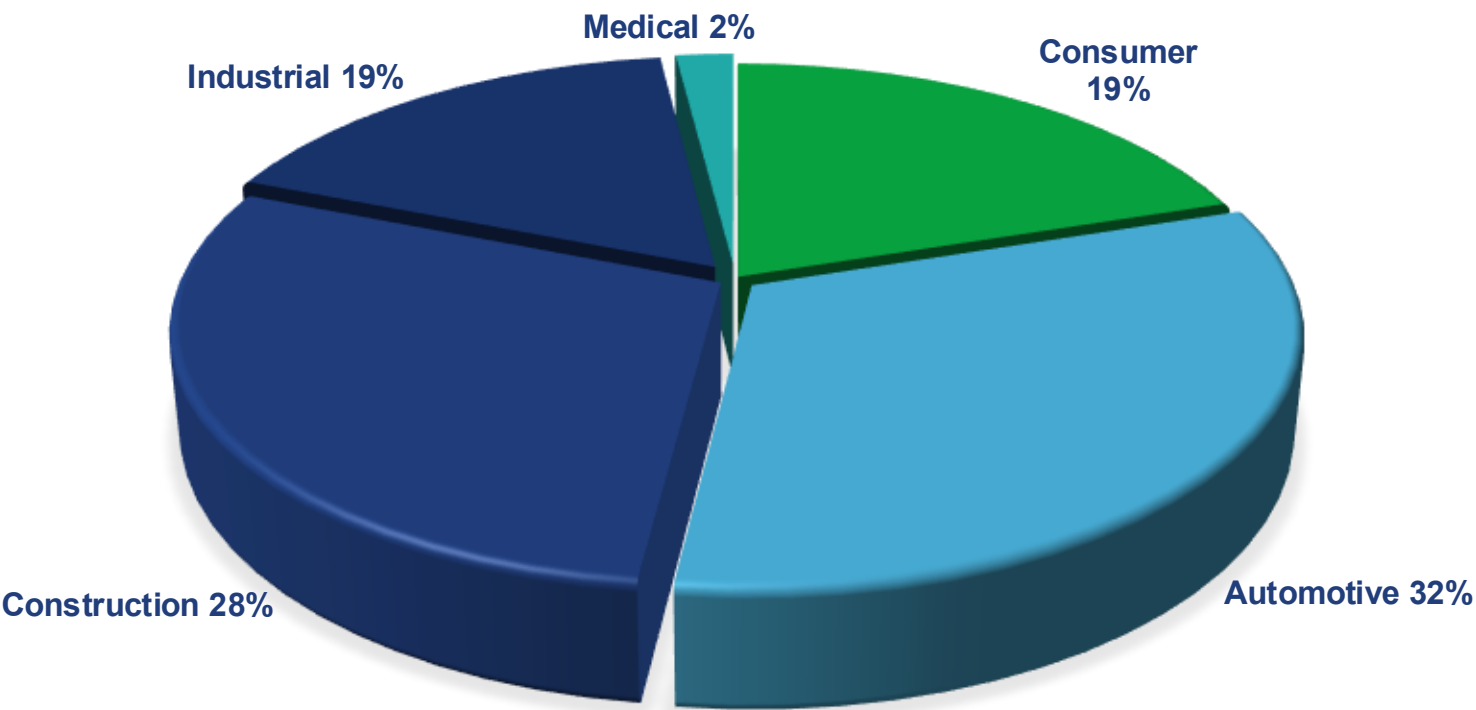
**Everyday Life
Engineering
Partner of
Global TPE Users**



MARKETS



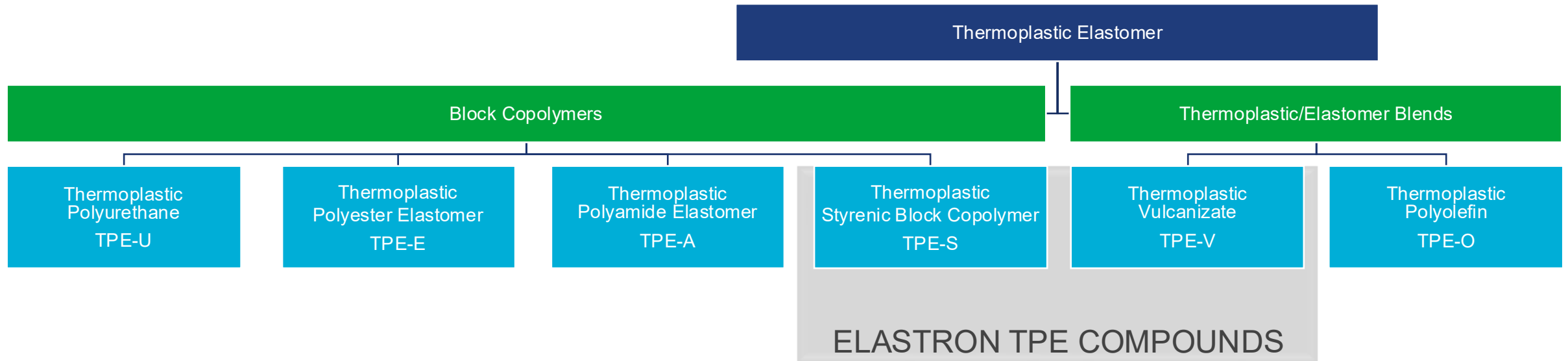
Markets	Percentage Distribution
Automotive	32%
Construction	28%
Consumer	19%
Industrial	19%
Medical	2%





Thermoplastic Elastomers

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



Product Line

General Purpose Grades

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

High Temperature Resistant Grades

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

Weatherseal Grades

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

High Flow Grades

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

Impact Modifiers for

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

Bondable Grades

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

Flame Retardant Grades

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

Low Coefficient of Friction Grades

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

Non-hygroscopic TPVs

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



CONSUMER

Elastron offers a wide range of high quality TPE compounds to designers and producers of consumer.



Elastron TPE Grades for Consumer Applications

Elastron TPE grades are recyclable, easy to color with masterbatches and have excellent surface appearance. SEBS-based TPE compounds can be offered in transparent form.

Elastron offers a wide range of high-quality TPE compounds to designers and producers of consumer goods. Consumer goods take an essential place in people's daily lives.





Key Features of Elastron TPE Grades for Industrial Applications



Material Properties

- Weight Reduction
- Weathering Resistance
- Good Chemical Resistance
- Abrasion and Scratch Resistance
- Low Dielectric Constant (2,5 - 3,0)
- Dielectric Strength (7 - 30 Kv/Mm)
- High Surface Resistivity
- Low Smoke Density



Design

- Wide Hardness Range
- Glossy Finish to a Matt Aspect
- Natural, Black, Pre-Colored
- Adhesion to Engineering Plastics



Processing

- Single / Multi-Injection
- Extrusion / Co-Extrusion
- Overmolding
- Recyclability
- High Flow Grades
- Short Cycle Time
- Adhesion to Polyolefins and Engineered Plastics
- Lower Energy Consumption
- No Curing Required



Safety & Regulation

- Halogen-Free Flame-Retardant Solutions
- UL 94 Listed
- High Ignition Temperature
- RoHS Conformity



Sustainability

- PIR/PCR Grades
- LCA Data
- High Recycle Content
- In Process Recyclability
- Reducing of CO₂ Emission
- Impact Enhancer Solutions for Recycled Materials



Segments & Important Applications

FOOD CONTACT APPLICATIONS

- Food container seals
- Chopping board handles
- Kitchenware grips

DRINKING AND TAP WATER APPLICATIONS

- Shower hose and head
- Water pump seals
- Water dispenser seals

SPORT ITEMS

- Bicycle handlebar grips
- Ski poles holders
- Fitness equipment protection covers
- Swimming flippers

FURNITURE

- Furniture seals
- Furniture feet
- Bed slat holder
- Door stopper

PERSONAL CARE

- Toothbrush handles
- Razor grips
- Respiratory box for protective masks

WHITE GOODS & ELECTRICAL APPLIANCES

- Washing machine suspensions
- Washing machine shock absorbers
- Combi boiler pipe connectors
- Refrigerator gaskets

HOUSEHOLD GOODS

- Carpet backing
- Houseware grips
- Power and hand tool grips
- Hangers

OFFICE EQUIPMENT

- Pen grips
- Erasers
- Pencil cases

TOYS

- Pet toys
- Model car wheels
- Stamp pads for kids





DRINKING AND TAP WATER APPLICATIONS

Product

- V281 Series
Shore A 55 – 90 and Shore D 40

Applications

- Drinking Water Hose
- Shower Head
- Water Dispenser Seal
- Water Pump Seal

Key Features

- ✓ NSF/ANSI 61 (cold & commercial hot water)
- ✓ US FDA CFR 21 (raw material conformity)
- ✓ Provides water transportation without contamination or impurity
- ✓ Copper resistant
- ✓ Good elasticity and elastic recovery
- ✓ Fatigue resistance
- ✓ Long term stability (thermal, UV, and ozone)
- ✓ Good resistance to aqueous substance such as acid, bases or salts





FOOD CONTACT APPLICATIONS

Food Container Seal

- F.G100 Series (Shore A 40-80)
- F.G400 Series (Shore A 50-80)
- F.G401.A90.N
- F.G500.A40.N.PA
- F.G500.A60.N.ABS

Kitchenware Grip

- F.V100.A60.N
- F.V100.A60.B

Knife Handle

- F.G100.A60.N

Key Features

- ✓ Very low potential to release substances into food
- ✓ Suitable for contact with simulant A, B, C, D1
- ✓ Good haptics
- ✓ Regulation (EU) No.10/2011
- ✓ US FDA CFR 21 (raw material conformity)





FOOD CONTACT APPLICATIONS

Bottle Cap Seal

- F.G100.A55.N
- F.G400.A60.N
- P.V101.A64.N

Cutting Board Gasket

- F.G400.A70.N
- F.G100 Series (Shore A 40-80)

Coaster

- F.G400 Series

Foldable Bowl

- F.V100.A60.N

Food And Beverage Hose

- F.G401.A55.N

Thermos Seal

- F.G400.A60.N

Key Features

- ✓ Very low potential to release substances into food
- ✓ Suitable for contact with simulant A, B, C, D1
- ✓ Good haptics
- ✓ Regulation (EU) No.10/2011
- ✓ US FDA CFR 21 (raw material conformity)





FURNITURE

Furniture Feet

- G400.A60.T
- V101.A72.B
- V100.A85.B

Furniture Seal

- G100.A85.N
- G101 Series
- G301.A55.N
- G401.A75.N
- V101.A75.N
- V201.A41.N
- V861.A70.N

Key Features

- ✓ Good elastic recovery
- ✓ Durability
- ✓ Aesthetic, style and functionality of finished products
- ✓ Abrasion resistance, scratch resistance
- ✓ UV and weather resistance compounds





FURNITURE

Bed Slat Holder

- D100 Series
- D300 Series
- G100.A75.N

Non - Slip Mat

- F.G401.A65.T

Chair Arm Rest

- G400.A52.T

Door Stopper

- G100.A65.B
- G100.A75.N

Key Features

- ✓ Good elastic recovery
- ✓ Durability
- ✓ Aesthetic, style and functionality of finished products
- ✓ Abrasion resistance, scratch resistance





HOUSEHOLD GOODS

Hand & Power Tool Grips

- G100 Series
- G104 Series
- V101 Series (Shore A 65-90)
- G300 Series
- G400 Series
- G500 Series (PA, ABS, PS bondable)
 - TOOLBOX CAP SEAL
 - TOOL BOX HANDLE
 - SEAL RING FOR TOOL BOX
 - POWER TOOL HANDLE
 - PLIERS GRIP
 - HAND TOOL GRIP

Key Features

- ✓ Good scratch and abrasion resistance
- ✓ Ergonomic, comfortable, firm grip for easy handling
- ✓ Non-slip surface for a better control and safety





HOUSEHOLD GOODS

Houseware Grips

- V101 Series (Shore A 65-90)
- G100 Series
- G300 Series
- G500 Series (PA, ABS, PS bondable)
 - **BROOM HANDLE**
 - **BRUSH HANDLE**
 - **CLEANING BOX HANDLE**
 - **LAUNDRY BASKET HANDLE**
 - **MOP HANDLE**
 - **SPONGE HANDLE**
 - **SQUEEGEE SEAL**
 - **TOILET BRUSH HANDLE**

Key Features

- ✓ Good scratch and abrasion resistance
- ✓ Comfort touch





HOUSEHOLD GOODS

Hanger Clip

- D100.A45.B
- D100.A45.N
- G401.A30.T

Key Features

- ✓ BHT-free grades to prevent staining
- ✓ Can become fancy with different colors and soft touch finish
- ✓ Suitability of co-injection with PS and PP create design flexibility and process advantage





HOUSEHOLD GOODS – CARPET BACKING

Elastron Carpet Backing Series	Density (ASTM D792)	Hardness (ASTM D2240)
G990 Series	0,89 g/cm ³	Shore A 40-90 and D 45
G992 Series	1,03 g/cm ³	Shore A 48-90 and D 45
G993 Series	1,11 g/cm ³	Shore A 40-90 and D 45
G994 Series	1,21 g/cm ³	Shore A 48-90 and D 45
G995 Series	1,35 g/cm ³	Shore A 40-90 and D 45

Key Features

- ✓ Good resistance to laundry detergents, bleachers and softeners
- ✓ Good elasticity and elastic recovery
- ✓ Skin and eco- friendly
- ✓ Anti-slip property
- ✓ No sticking to the floor
- ✓ Good organoleptic properties
- ✓ Machine washable upto 40°C
- ✓ Longer life span





OFFICE EQUIPMENT

Pen Grip

- G100 Series
- G400 Series

Eraser

- D103 Series for Eraser
- D103.A56.N (special formulation for exam eraser)

Key Features

- ✓ Dust-free eraser
- ✓ Extra clean erasing enhanced for pencil
- ✓ Provides one piece residue to avoid around spreading
- ✓ Good quality for erasing markups on exam and test paper
- ✓ Pen grips ideal for removing pencil marks
- ✓ PVC free
- ✓ In compliance with EN 71-3 toy safety regulation





PERSONAL CARE - PERSONAL PROTECTION GEAR

Industrial Gas Mask Seal

- G100.A21.N

Respiratory Box For Protective Mask

- F.G100.A40.N
- G100.A40.N

Breathing Mask

- G400.A40.N.S

Cord For A Nose Clip

- F.G400.A41.T

Ear Plug

- G100.A30.N
- G400.A22.N
- G400.A50.N

Key Features

- ✓ Good elastic recovery
- ✓ Good organoleptic properties
- ✓ Comfort touch
- ✓ Skin friendly





PERSONAL CARE - DENTAL CARE

Toothbrush Handle

- F.G100 Series
- F.D300 Series
- F.G300 Series
- F.G400 Series

Tongue Cleaner

- F.G100 Series

Key Features

- ✓ Easy processing
- ✓ Smooth touch
- ✓ Colorable with masterbatch
- ✓ Regulation (EU) No.10/2011
- ✓ FDA 21 CFR Raw Material Conformity
- ✓ EN 71-3 European safety standard for toys





PERSONAL CARE - BABY CARE

Baby Nose Aspirator

- G300.A50.N

Disposable Nipple

- F.G400.A40.T

Handle Of Baby Spoon

- F.G400.A70.N

Baby Teether

- F.G300.A50.N
- F.G400.A70.N

Breast Milk Pump Seal

- F.G300.A40.N.S
- P.V101.A60.N

Children Eyeglasses

Ear Grip

- G401.A30.T

Key Features

- ✓ Smooth touch allowing babies feel the texture
- ✓ Food safe material allowing babies taste the object
- ✓ EU 10/2011
- ✓ FDA 21 CFR raw material conformity
- ✓ EN 71-3 Safety of Toys
- ✓ Different colors allowing babies color vision improvement





PERSONAL CARE - SHAVING

Razor Grip

- D500.A35.N.PS
- G300.A36.N
- G300.A50.N

Key Features

- ✓ Easy processing
- ✓ Soft touch
- ✓ Colorable with masterbatch
- ✓ Good antislip performance even under wet conditions





PERSONAL CARE - COSMETIC PACKAGING

Cosmetic Bottle Dropper

- V860.A55.N

Cosmetic Bottle Seal

- F.G100.A60.N
- G401.A82.N

Key Features

- ✓ Easy processing
- ✓ Soft touch
- ✓ Colorable with masterbatch
- ✓ Good chemical resistance





SPORT ITEMS

Bicycle & Scooter Handlebar Grip

- G100.A60.N

Bicycle Hood Cover

- G250.A59.B

Knee Pad

- G400.A90.N
- V103.A65.B

Scooter Castor Wheel

- G400.A80.N

Scooter Board Mat

- G100.A40.N

Mudguard Of Bike

- V100.D55.B

Key Features

- ✓ Good elastic recovery
- ✓ Tear and peeling resistance
- ✓ Impact resistance
- ✓ Non-sticky surface
- ✓ Scratch and abrasion resistance
- ✓ Resistant to weathering





SPORT ITEMS

Balance Training Ball (Bosu)

- G100.A80.N

Frisbee Golf

- G100.A90.040 (special design)

Key Features

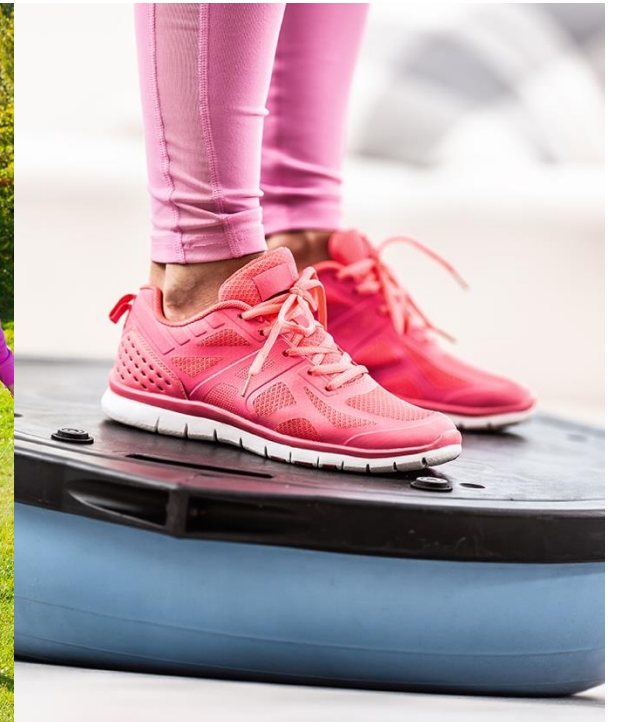
- ✓ Good elastic recovery
- ✓ Tear and peeling resistance
- ✓ Impact resistance
- ✓ Scratch and abrasion resistance
- ✓ Resistant to weathering

Pilates Elastic Band

- G401.A25.N

Horse - Boot Lace

- G400 Series





SPORT ITEMS

Swimming Flipper

- D300.A40.N
- G300.A45.B
- G400.A75.N
- G403 Series

Kayak Hatch Cover

- V103 Series

Ski Goggle Visor Cleaner Gasket

- G401.A30.T

Sport Eyeglass Nose Pad

- G400.A22.N
- G400.A52.T

Key Features

- ✓ Good elastic recovery
- ✓ Tear and peeling resistance
- ✓ Scratch and abrasion resistance
- ✓ Resistant to weathering
- ✓ Available to use in chlorinated and salt water





TOYS

Toys Wheel

- G100 Series
- D100.A58.N
- D300.A55.B

Toys Strip

- G100.A65.B
- G400.A12.N
- G300.A85.N

Pet Toys

- F.G300.A57.N
- F.G400.A40.N
- G400.A40.N

Model Animal Toys

- G100 Series
- G400 Series

Key Features

- ✓ Silky smooth
- ✓ Soft-touch,
- ✓ Non-slip surface
- ✓ Conform to EN 71-3
- ✓ Safe for children
- ✓ Easy colorable with masterbatch





WHITE GOODS & ELECTRICAL APPLIANCES - DISHWASHER

Dishwasher Basket Wheel Gasket

- V401.A55.B

Dishwasher Hose

- P.V101.A80.N

Dishwasher Bumper Cover

- G100.D43.N

Key Features

- ✓ Elastic recovery
- ✓ Optimized compression set
- ✓ Chemical resistant to salts, detergents, dishwashing soap
- ✓ Stable mechanical physical properties at elevated temperatures
- ✓ Special grades stabilized for protection against metals (copper)
- ✓ Abrasion and stracth resistant grades
- ✓ Suitable for hot welding





WHITE GOODS & ELECTRICAL APPLIANCES - WASHING MACHINE

Drain Hose For Washing Machine

- V101.A65.B

Washing Machine Hose Connector

- G100.A70.702

Washing Machine Shipping Bolt

- G300.A70.N

Smart Card Safe

- G601.A45.N

Key Features

- ✓ Elastic recovery
- ✓ Optimized compression set
- ✓ Chemical resistant to salts, detergents, dishwashing soap
- ✓ Stable mechanical physical properties at elevated temperatures
- ✓ Special grades stabilized for protection against metals (copper)
- ✓ Abrasion and stracth resistant grades
- ✓ Suitable for hot welding

Washing Machine Door Seal

- V101.A55.B.U
- G218.A41.793

Washing Machine Shock Absorber

- V100.A65.B
- V101.A72.B
- V100.A85.B
- V101.A79.N
- V101.A65.B

Washing Machine Suspension

- V100.A75.B
- V101.A60.N
- V100.A78.B





WHITE GOODS & ELECTRICAL APPLIANCES - REFRIGERATOR

Refrigerator Door Seal

- G901.A42.N

Industrial Freezer Door Seal

- G101.A65.701
- G101.A73.701

Key Features

- ✓ Elastic recovery
- ✓ Optimized compression set
- ✓ Chemical resistant to salts, detergents, dishwashing soap
- ✓ Stable mechanical physical properties at low temperatures
- ✓ Abrasion and stracth resistant grades
- ✓ Suitable for hot-plate welding





WHITE GOODS & ELECTRICAL APPLIANCES - VACUUM CLEANER

Vacuum Cleaner Dust Box Lid Seals

- G101.A30.N
- G400.A22.N
- G400.A65.N.S

Vacuum Cleaner Filter Seals

- G300.A55.N

Vacuum Cleaner Handle

- G100 Series
- G500.A60.B.PA

Vacuum Cleaner Head Bumper Guard

- G901.A80.B

Vacuum Cleaner Hose Seals

- G500 Series (PA, ABS, PS bondable)

Key Features

- ✓ Elastic recovery
- ✓ Optimized compression set
- ✓ Easy to clean with detergents
- ✓ Abrasion and stracth resistant grades





Find out more about your
TPE solutions partner now.

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