

# Polyurethane elastomer solutions

# Performance at every level

## Polyurethane centre of excellence

Trelleborg is a world leader in engineered polymer solutions that seal, damp and protect critical applications in demanding environments. Its innovative engineered solutions accelerate performance for customers in a sustainable way. The Trelleborg Group has local presence in over 40 countries around the world.

Trelleborg Applied Technologies is part of the Trelleborg Group, where we produce high-quality polyurethanes elastomers. We have over 60 years of manufacturing experience and are certified to ISO 9001:2015 and ISO 14001:2015.

We supply our products worldwide, through our experienced sales team and distributor partners. Our success comes from us providing technical solutions, being flexible, offering free technical advice as well as first class after-sales support.



## Technical innovation, design and engineering

With an emphasis on new products, design and materials, our team of experts strive for innovation and solutions for industry.

### Technical team

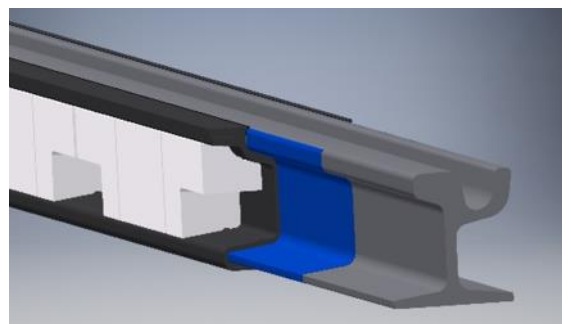
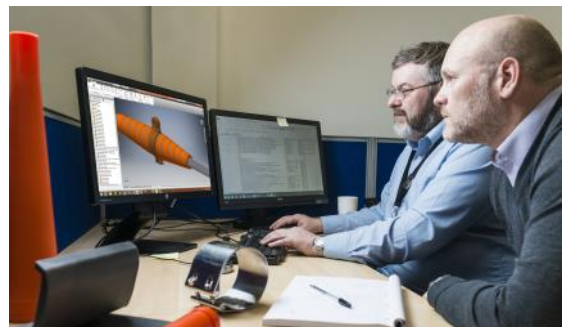
Continually review materials and applications for new product solutions:

- Expertise in material selection
- Identify value-added performance benefits

### Design and engineering team

With their wealth of experience, they provide optimum polyurethane/component designs and solutions ensuring maximum product performance:

- Technical consultation and design
- Comprehensive drawings for each component
- Detailed 3D rendered visuals







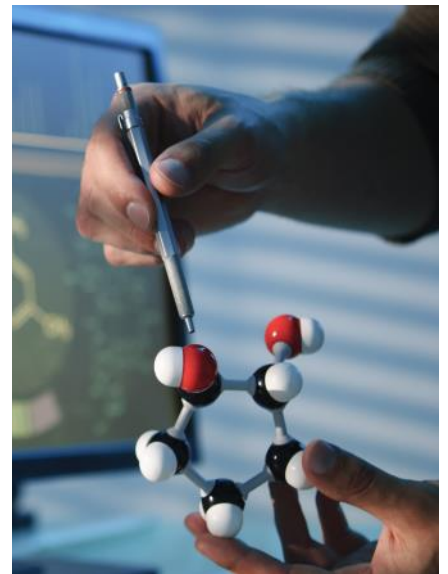
# A history of excellence

## How can our high performance polyurethane benefit your business

Polyurethane is the tough but gentle alternative to rubbers, plastics and in many cases metals, where extra performance life is required in arduous applications.

### Key benefits include:

- Easily moldable into any shape and profile
- Cost efficient manufacture - one-off parts, prototypes or high volume
- Performs well in harsh environments - excellent abrasion, impact and corrosion resistance with no or minimal degradation (outlasts rubber typically +6 times)
- Available in a wide hardness range - 10° Shore hardness A to 95° D
- Flexible— excellent elongation and recovery properties
- Strong bonding properties to plastics, metals and wood
- Operates in a wide range of temperatures. Typically -40°C to 85°C
- Exceptional electrical insulating properties
- High tear resistance along with high tensile strength
- Resistant to oil, fuel and sea water
- Good noise dampening properties
- Lightweight with high load-bearing capacity
- Colour coded for easy identification
- Appropriate for both indoor and outdoor applications



## All polyurethane grades processed

We provide full technical consultation, design, prototype development and complete manufacture in all grades of polyurethane, including:

- MDI      Diphenylmethane diisocyanate
- NDI      Naphthalene diisocyanate
- TDI      Toluene diisocyanate
- PPDI      Para-phenylene diisocyanate
- Ether, Ester, Polycaprolactone and Polyols

In our state of the art manufacturing facilities, we process industry leading polyurethane systems, each providing unique performance benefits to meet your specification.



# Manufacturing and quality excellence

## Manufacturing excellence

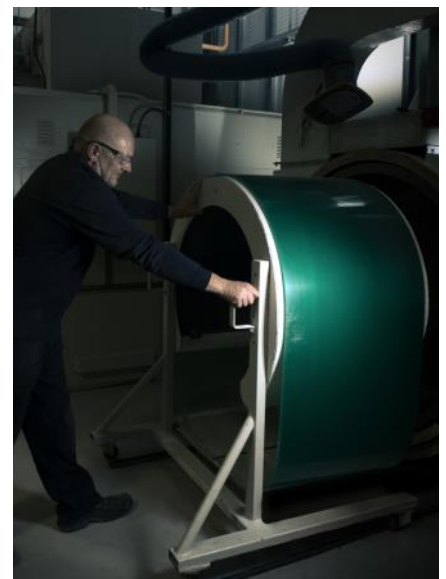
Depending on your specification, we pride ourselves on making components as efficiently and economically as possible.

We are ISO 9001:2015 certified and have established processes and people to deliver a quality product and service time after time.

Our highly trained operators have many years of experience in producing polyurethane components. They use the latest manufacturing techniques and equipment for material processing. Some of our processes include:

- Cast molding
- Centrifugal sheet manufacturing
- Extrusion
- Hand-finishing
- Injection molding
- Roller coating
- Tool manufacture

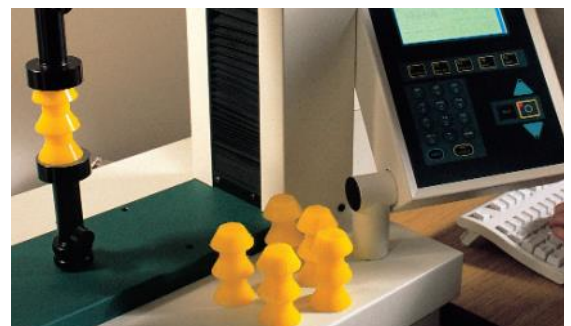
We are committed to environmentally friendly practices as well as minimizing waste. Our ISO 14001:2015 certification ensures we follow a framework for implementing sustainable environmental practices in all areas of the business.



## Quality assured

We only use the best raw materials, so the final product gives you maximum performance.

Throughout the manufacturing process, the materials are tested every step of the way, using internationally recognised test methods.





# Bespoke innovative solutions

## Our polyurethane solutions

With downtime at a premium, you need solutions that work. Harsh and variable conditions demand excellent performance, high quality, low maintenance products. Our polyurethane solutions encompass these factors and more: enabling you to keep costs low over the product life cycle.

Our technical team review in detail your requirements and propose the best solution, be it a standard or complex part. We can provide the complete service from prototyping, to small and bulk production.

### Benefits of working with Trelleborg Applied Technologies

- Complete range of polyurethane solutions
- Proven-engineering excellence
- Industry-leading design and materials expertise
- Best practice manufacturing
- Ongoing technical support

Trelleborg Applied Technologies strives to provide a cost-effective, durable solution that matches your specific business requirements and needs.



# Accelerating performance

**We provide engineered solutions worldwide for the most critical applications, from standard parts to bespoke products.**

## Aerospace

Increased air travel calls for solutions that can make planes lighter, safer and more energy efficient. We provide solutions on both the aircraft as well as operational support:

- Aircraft chocks
- Bump stops
- Conveyor rollers
- Dunnage solutions
- Erosion protection
- Material handling
- Packing blocks
- Rubbing strips
- Trunnion rollers
- Wear pads



## General industry

Our polyurethane systems are providing solutions for many industries; including agriculture, automotive, manufacturing, process equipment, material handling:

- Air tool handles & nozzles
- Bushes, buffers & rollers
- Chute & hopper wear liners
- Conveyor belt scrapers
- Cord, tube & conveyor belting
- Discharge chutes
- Dunnage & materials handling
- Dunnage solutions
- Edge profile strips
- Feed & flange wheels
- Harvesting wheels & scrolls
- Hydro-cyclones
- Impellers & diffusers
- Packing blocks
- Press tool springs
- Roller coverings
- Scrapers
- Stars wheels & spacers
- Squeegee blades
- Wheels for forklifts



## Marine, ROV and oceanographic

We design and develop engineering solutions for the harsh and demanding environments of international seismic and oil and gas markets. As well as for harbour management and marine vessels:

- Bend restrictors and stiffeners
- Bullnose coverings
- Bumpers & shock absorbers
- Cable handling
- Chafe and flange protectors
- Cones & sleeves
- Fenders & linings
- Pipe-pigs & piggyback blocks
- Polyurethane rollers
- Ramps & pipe protection
- Rollers & sheave wheels
- Seismic node protection
- Tension pads
- Towing attachments





# Application expertise

## Mining equipment

For many years, we have been deeply involved in the construction and mining industry, finding innovative ways to enable higher productivity with our polyurethane solutions:

- Auger screws
- Belt scraper blades
- Bucket liners
- Capping rubber
- Chute & bunker wear linings
- Concrete mixer paddles
- Conveyor impact cradles/bars
- Cyclone lining
- Dewatering screens
- Dry silo chamber liners
- VariSpray Nozzles
- Protection covers & wear pads
- Rubber skirting
- Sand plant parts
- Screen media systems
- Shock absorbers and buffers
- Trommel screens
- Vibration dampers



## Rail and mass transport

Every day millions of people and tons of goods are transported by train. Our polyurethane solutions are designed to continuously prove their durability and keep things rolling safely and smoothly 24/7:

- Embedded rail systems
- Motion and insulation caps
- Dunnage solutions
- Rail dampeners
- Retaining and wedge blocks
- Rods, tubes and block
- Shock absorbers and buffers
- Torque bungs



## Renewable energy and power generation

Wind, water wave or solar energy, Trelleborg is at the forefront of the technical evolutions providing the innovative solutions required to meet the world's growing demand for energy:

- Anti-vibration buffers
- Bearing pads
- Bushes
- Blade erosion protection
- Internal rollers
- Offshore bend control systems
- Offshore buoyancy modules
- Offshore cable/flowline protection
- Offshore clamping solutions
- Packing blocks
- Pole covers
- Washers & drive shaft pads





Trelleborg is a world leader in engineered polymer solutions that seal, damp and protect critical applications in demanding environments. Our innovative engineered solutions accelerate performance for customers in a sustainable way. The Trelleborg Group has local presence in over 40 countries around the world.

[WWW.TRELLEBORG.COM/APPLIEDTECHNOLOGIES](http://WWW.TRELLEBORG.COM/APPLIEDTECHNOLOGIES)



[www.twitter.com/trelleborgat](http://www.twitter.com/trelleborgat)

[www.linkedin.com/company/trelleborg-applied-technologies](http://www.linkedin.com/company/trelleborg-applied-technologies)