

Europe

Tecnoelastomeri S.r.l.
Polyurethane Systems and Machines
Via Magellano, 7/9/11
41013 Castelfranco Emilia (MO) Italy
Telephone +39 059 92 07 07

Contact :

Denis Turmel
Marketing Manager
e-mail : polyurethanes_eu@huntsman.com

USA

Huntsman Polyurethanes
2190 Executive Hills Boulevard
Auburn Hills, MI 48326
Telephone +1 248 322 7300

Contact :

Paola Palma Faoro
Marketing Manager
paola_palma_faoro@huntsman.com

China

Huntsman Chemistry R&D Center (Shanghai) Co.
No 479 Wen Jing Road
Minhang Development Zone
Shanghai 200245
Telephone +86 21 3357 2883

Contact :

Jeffery Zhang
Marketing Manager
jeffery_zhang@huntsman.com

www.tecnoelastomeri.com
www.huntsman.com



About Huntsman:

Huntsman Corporation is a publicly traded global manufacturer and marketer of differentiated and specialty chemicals with 2016 revenues of more than \$7 billion. Our chemical products number in the thousands and are sold worldwide to manufacturers serving a broad and diverse range of consumer and industrial end markets. We operate more than 75 manufacturing, R&D and operations facilities in over 30 countries and employ approximately 10,000 associates within our four distinct business divisions. For more information about Huntsman, please visit the company's website at www.huntsman.com.

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Custom, end-to-end elastomers service

High-tech elastomers and
elastomer casting machines
tailored to your needs



Everything you need in engineering elastomers

Huntsman Tecnoelastomeri is one of the world's leading manufacturers of high-tech elastomers and elastomer casting equipment. As part of the global specialty chemical company Huntsman, we offer everything you'll ever need when it comes to selecting and processing hot-cast engineering elastomers.

Very few companies provide what we do – a bespoke, end-to-end elastomers service.

Under our TECHNOTHANE™ brand, we provide a wide range of off-the-shelf and custom-made hot-cast engineering elastomers. These innovative materials are used to create durable wheels, seals, rollers, pads and other technical parts for industrial, manufacturing and transportation applications. We make our own CASTECH™ machines for the efficient processing of polyurethane elastomers and microcellular elastomer foams. We also provide a 360 degrees scientific support service for customers that need help evaluating or working with elastomers.

Whatever your engineering elastomer needs, we'll find your perfect match of materials and machinery.

From first idea to final product

We like to exceed people's expectations of elastomers – challenging assumptions about what elastomer producers can offer and what elastomers can do. To achieve this, our end-to-end elastomers service covers every aspect of elastomer development from first ideas to final product.

Because every customer is different, we take a highly personalized approach to each elastomer project we embark on. First, we explore your ideas to understand what you need from an engineering elastomer. Then we make the materials and machines, and can help engineer the molds, to deliver what you need. Experts in engineering elastomers, we're with you at every step - helping to make your ideas a reality.



1 Explore ideas and define market/technical requirements



2 Select or custom make materials and molds



3 Specify then assemble the correct CASTECH™ machine



4 Begin the elastomer part production process

Defining possibilities. Matching expectations. Research and Innovation



To enable us to recommend the right elastomers and correct casting equipment, we've set up our own Research & Innovation Department. Dedicated to advancing the development and application of polyurethane-based engineering elastomers, this specialist facility helps us study the science behind customer concepts and pinpoint the perfect products.



Our global research and innovation department is extensively equipped with testing apparatuses and staffed by scientists who are experts in:

- Rheological analysis
- Fourier transform infra-red spectroscopy (FTIR)
- Differential scanning calorimetry (DSC)
- Size exclusion chromatography (SEC)
- Nuclear magnetic resonance (NMR)
- Thermogravimetric analysis (TGA)
- Plus many other disciplines.



We've also installed CASTECH™ machines at technical centers in Belgium, China, and the USA. This investment puts our product research and prototyping capabilities closer to our customers and increases opportunities for us to work together on collaborative, elastomer-based, innovation projects.

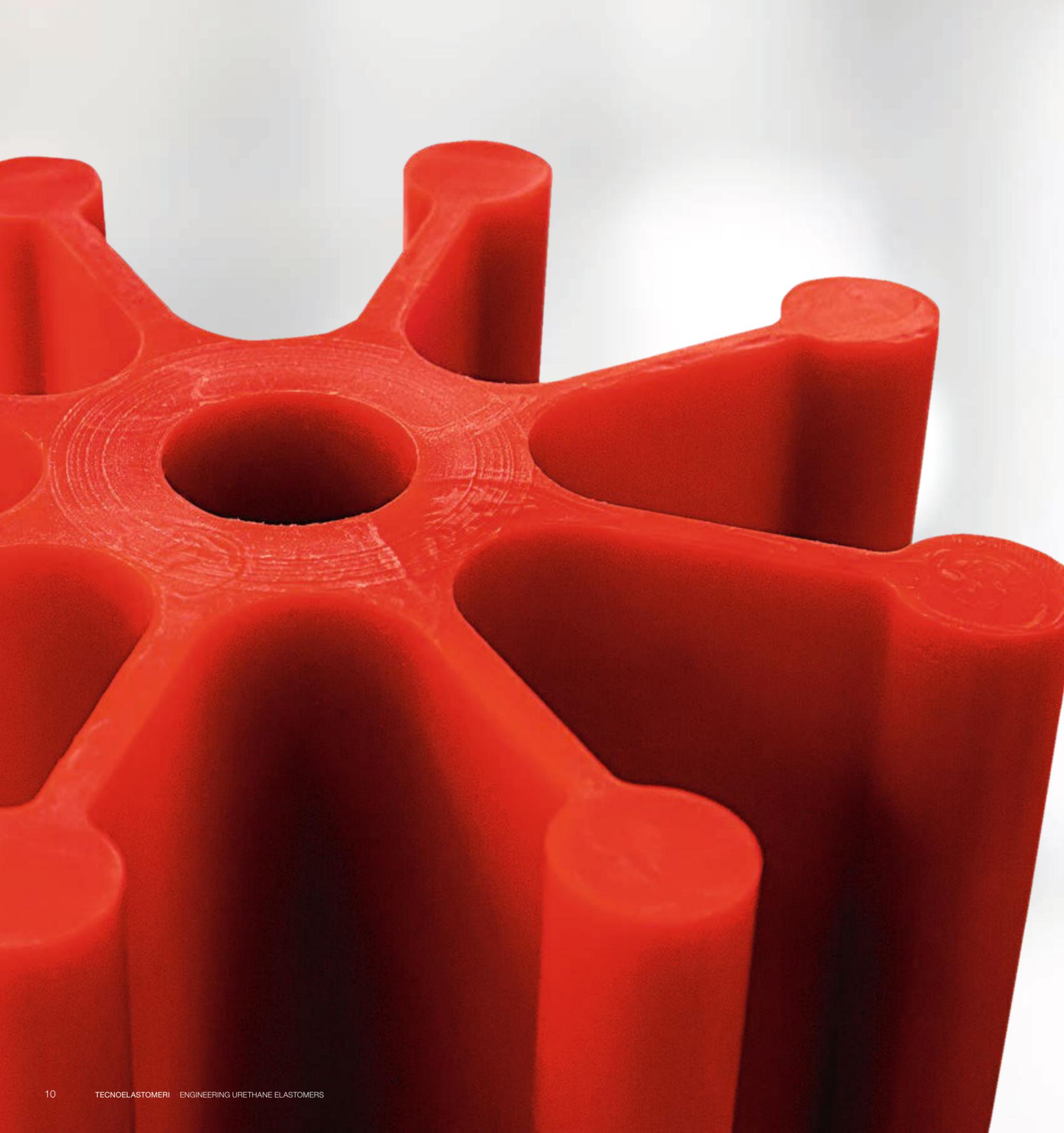
A world of expertise – focused on your needs

As a major, global supplier to the elastomers industry, we'll be there whenever you need us - wherever your production base and whatever your target market. Worldwide our network of systems houses, manufacturing hubs and technical centers spans all regions, with sites strategically located to ensure our elastomers expertise and our people and products are close to our customers.

HUNTSMAN

Enriching lives through innovation





Create unique products, with unique elastomers

Your ideas are the starting point for our formulation work and the first step in finding you exactly the right kind of engineering elastomer. Once we know what you want to achieve, we can discuss the extensive formulation options available via our TECHNOETHANE™ product range.

TECHNOETHANE™ is an advanced portfolio of polyurethane-based, hot-cast, engineering elastomers, which includes a full range of polyols and chain extenders. Over the years we've blended these raw materials together, in different combinations - creating a suite of tried and tested elastomer formulations that we market as our MPC, MDE, MPT, SWP, WRP, V-TER and V-TER Z product families.

Proven to perform, these standard products are easy to process and provide good chemical resistance and excellent mechanical characteristics. Often these off-the-shelf solutions will satisfy our customers' needs. But if not, don't worry. We can work together to make you something unique.





A total product solution for total satisfaction CASTECH™ machines



We branched out with the development of CASTECH™ machines in 2002. After many years in the industry, we saw a gap in the market and knew there was an opportunity to create a better kind of high-precision casting machine. Using our knowledge of elastomer properties, we designed a piece of equipment that would work in complete harmony with our TECHNOTHANE™ systems – getting the very best out of our materials. Naturally, we were careful to also design a solution that would be compatible with TDI, NDI and other polyurethane platform technologies, including technical foam.

The result is CASTECH™ – a flexible, low maintenance equipment solution, that can be used to efficiently cast compact

polyurethane elastomers and microcellular elastomer foams from all types of isocyanate and chain extender combinations. Offering the highest levels of accuracy and flexibility, our CASTECH™ machines are among the most advanced equipment options available for the efficient manufacture of elastomers. Featuring a range of interchangeable parts, CASTECH™ machines are fully flexible and can be tailor made to suit customer requirements. As standard, they provide precision dosing with good mix homogeneity, a high output and precise shot casting capabilities. Each machine also comes with its own software package for monitoring performance variables and making adjustments during the manufacturing process.

A total product solution for complete satisfaction

Our engineering elastomers and casting machines are used across industry to create components and technical parts for a range of applications. In general, manufacturing our materials make a difference to the performance of parts in hydraulic, robotic and conveying equipment - supporting the growth of smart factories and automation. Our elastomers are also widely used in specialist market sectors from mining and metalworking to the automotive industry. Enclosed you'll find a series of leaflets about the application potential of our materials and machines.

