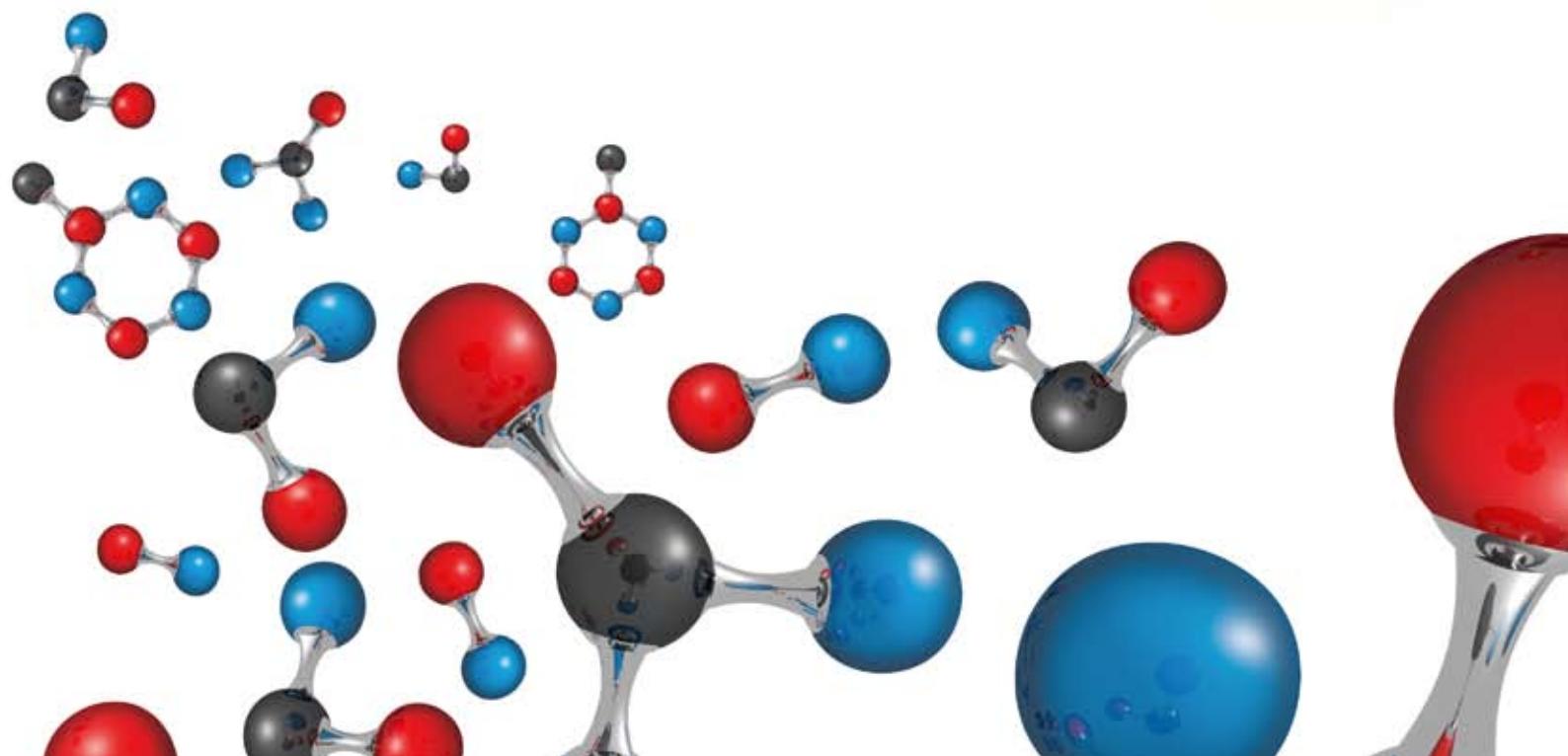


PU

Product  
Brochure



# ONGRONAT® the modern solution

*BorsodChem is one of the top suppliers of MDI and TDI products in Europe. This is due to our reputation for high quality and solid reliability. It's also because our ONGRONAT® range includes products that are specially tailored to fit your requirements. Read on to find out about the uses and advantages of polyurethane in almost every contemporary industry. Then check our handy product guide to see which ONGRONAT® product is best for you.*



## Construction

Versatile, cost effective and sustainable! Effective insulation is essential in modern construction. The potential energy savings are too significant to ignore – 25% for walls, 28% for roofs, 16% for floors and 20% for windows. Of all commonly used thermal insulation materials, rigid polyurethane insulation possesses the lowest thermal conductivity, providing the same performance with thinner material. It is durable, performs consistently throughout its lifetime and helps to maintain a comfortable living and working environment while reducing greenhouse gas emissions.



## Transport

Strong, safe, sustainable and affordable! Polyurethane's cushioning, insulating and shock absorbing properties enhance comfort and safety in almost every modern vehicle. Polyurethane can be tailored to the required shape and size, cutting down on waste and costs. Its light weight enhances the vehicle's performance, lowering fuel consumption and emissions. At the end of the vehicle's life, the PU components can be recovered or recycled, minimising environmental impact.

## Appliances

Strong, efficient and cost-effective with excellent insulation properties! Refrigerators and freezers containing PU rigid foam insulation currently preserve approximately half of the world's food. Polyurethane's thermal efficiency, light weight, small footprint and affordability make it perfect for food storage and transport. It is also ideal for water heaters, commercial display units and any appliances designed with low environmental impact and high energy savings in mind.





#### **Clothing and footwear**

Light and comfortable, yet durable and abrasion resistant! Polyurethane applies perfectly to modern clothing trends. Thanks to its versatility it is widely used in the production of shoes, synthetic leather and sports equipment. There is an endless variety of colours, surfaces and materials, and therefore countless ways to use PU within the industry!



#### **Furniture, bedding and decoration**

Polyurethane fits everywhere – in your home, your car and your office! Comfortable, lightweight and durable, PU flexible foam is an excellent cushioning and filling material for seating and mattresses. Its versatility also means that there are no limits in density or shape, making it popular with designers, producers and end-customers.



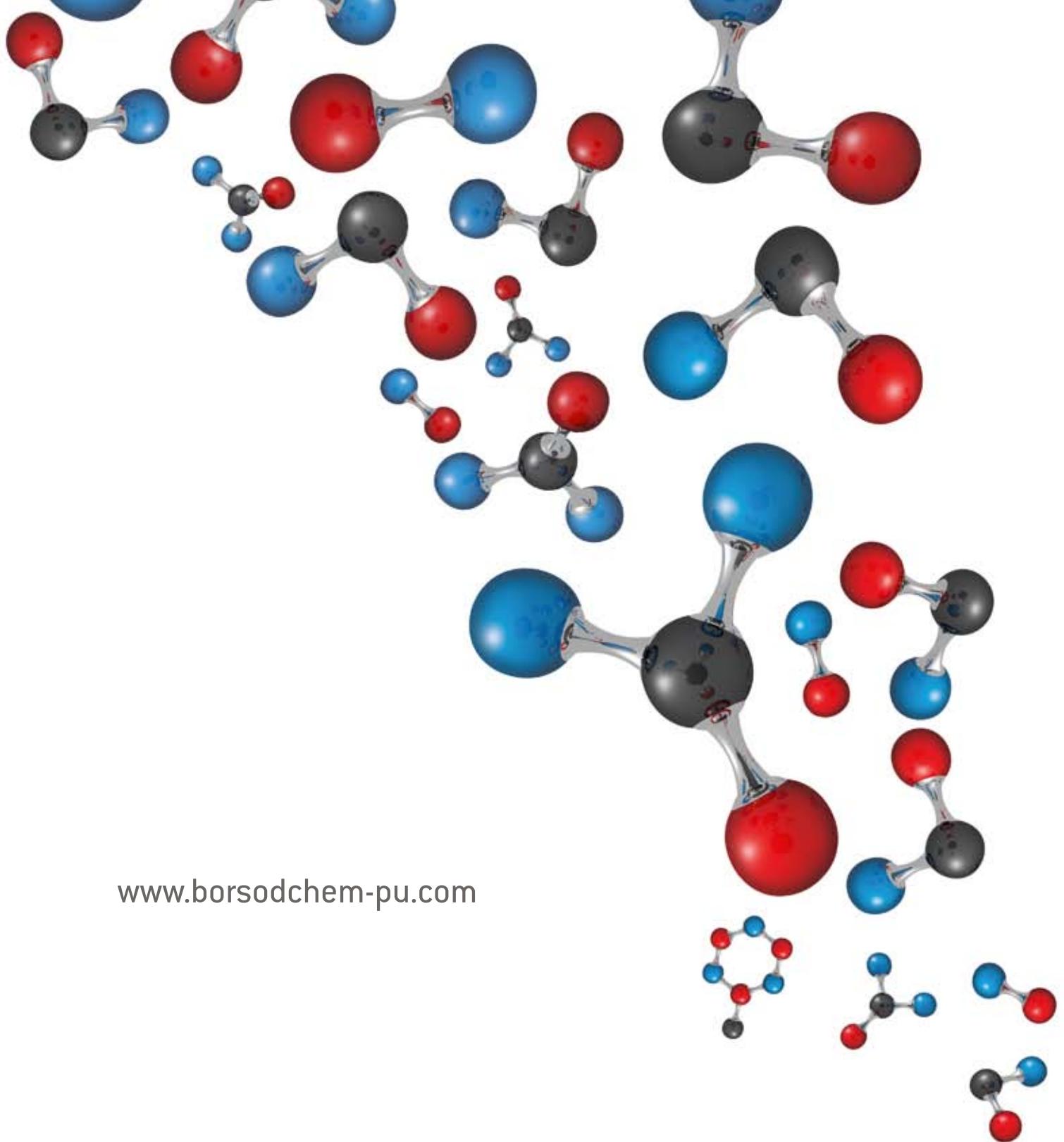
#### **Wood**

Strong bonding, fast curing, water resistant and solvent free, with no need for formaldehyde! Polyurethanes are excellent adhesive materials and are widely used in the wood industry to produce such materials as MDF, HDF, OSB and Particle Board.

Choose the right isocyanate from our ONGRONAT® range to match your PU production needs.

# Our products

<b>Ongronat® 1065</b>	A standard TDI 65/35 grade allowing for enhanced hardness foam.
<b>Ongronat® 1080</b>	A standard TDI 80/20 grade.
<b>Ongronat® 1100</b>	A high purity 2,4 TDI isomer, imparting controlled reactivity that makes this product particularly suited for paints, coatings, sealants and adhesive applications.
<b>Ongronat® 2100</b>	A polymeric MDI for general purpose. It is used in the manufacture of rigid insulating foams, semi-rigid integral skin, structural foams, elastomers and adhesives.
<b>Ongronat® 2300</b>	A polymeric MDI for general purpose. It is used for the manufacture of rigid insulating foams, semi-rigid integral skin, structural foams, elastomers and adhesives.
<b>Ongronat® 2500</b>	A special grade of polymeric MDI particularly suited for the manufacture of rigid insulating PIR foams. It can also be used for the manufacture of semi-rigid integral skin, structural foams and adhesives.
<b>Ongronat® 2700</b>	A high viscosity polymeric MDI for the production of specialty foams.
<b>Ongronat® 3000</b>	A general purpose pure MDI type suitable for a wide area of coatings, adhesives, sealants and elastomer/microcellular elastomer applications.
<b>Ongronat® 3010</b>	A standardised reactivity pure MDI type designed for specific performance.
<b>Ongronat® 3020</b>	A standardised reactivity pure MDI type designed for coatings, adhesives, sealants and elastomer/microcellular elastomer applications where particular attention to a specific performance is required.
<b>Ongronat® 3045</b>	A standardised reactivity pure MDI type designed for specific performance.
<b>Ongronat® 3050</b>	A controlled reactivity pure MDI type specifically designed for prepolymer manufacturing.
<b>Ongronat® 3600</b>	A pure MDI variant with high content of 2,4'-isomer for the production of HR foams, adhesives, coatings, elastomers and prepolymers.
<b>Ongronat® 3800</b>	A carbodiimide-modified MDI for the production of energy absorbing foams, microcellular elastomers, RIM elastomers, coatings and cast elastomers with a good processability and high durability.
<b>Ongronat® CO 2150</b>	A special grade of polymeric MDI with a controlled reactivity and improved colour for coatings, sealants and rigid insulation foams applied in the construction industry.
<b>Ongronat® CO 2160</b>	A special grade of polymeric MDI with precisely controlled colour and low reactivity for construction applications such as rigid foams and adhesives.
<b>Ongronat® TR 2000</b>	A special polymeric MDI grade with controlled reactivity.
<b>Ongronat® TR 2010</b>	A special grade of polymeric MDI with precisely controlled low reactivity. A good choice for automotive applications.
<b>Ongronat® TR 4001</b>	A blend of MDI variants and TDI, especially designed for low density carpet backing and good flowability.
<b>Ongronat® TR 4005</b>	An MDI blend, designed for under carpet/sound dampening or seating applications in the automotive industry.
<b>Ongronat® TR 4011</b>	An MDI-TDI blend specially designed for low density seat backs, at the same time imparting good physical properties.
<b>Ongronat® TR 4015</b>	An MDI blend with reduced reactivity, specifically designed for difficult under carpet applications.
<b>Ongronat® TR 4025</b>	An MDI blend designed to impart good flowability in under carpet applications.
<b>Ongronat® TR 4030</b>	An MDI blend providing enhanced flowability and foam stability.
<b>Ongronat® TR 4500</b>	A TDI-MDI blend for automotive seating.
<b>Ongronat® TR 5010</b>	A state of the art MDI grade, designed in particular for (front) seat applications.
<b>Ongronat® TR 5500</b>	Specialty MDI product designed to improve foam elastic properties.
<b>Ongronat® TR 5760</b>	A prepolymer-based MDI grade, designed for high density seating.
<b>Ongronat® AP 2310</b>	A low reactivity grade of polymeric MDI providing improved flowability whilst maintaining reactivity.
<b>Ongronat® FB 2450</b>	A standard grade of polymeric MDI with controlled reactivity providing enhanced consistency during processing.
<b>Ongronat® FB 4465</b>	A TDI-MDI isocyanate grade allowing for foam with increased durability while maintaining low densities.
<b>Ongronat® FB 5450</b>	An MDI prepolymer designed as a high quality binder for carpet backing rubber crumb and for rebonded foam.
<b>Ongronat® FB 5550</b>	A prepolymer based blend designed for high resilience / high density foam pads such as office and medical furniture.
<b>Ongronat® WO 2750</b>	A polymeric MDI with enhanced reactivity specifically designed for wood binding.



[www.borsodchem-pu.com](http://www.borsodchem-pu.com)