



ONGRONAT®

Isocyanates for Rigid Polyurethane Foams



RIGID

FOAM

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Versatile, cost effective and sustainable! Conserving energy and contributing to a sustainable environment, 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 foams offer the lowest thermal conductivity, providing the same thermal 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.

PU'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.

BorsodChem offers a great choice of Ongronat® isocyanate products for these applications providing excellent material properties and benefits.

The application-related information contained in this brochure has the purpose to give indication about the typical use of our products. Depending on the other components in the system, the suitability of our isocyanate products contained herein is not limited to the given applications, however the suitability of a certain product to the intended application always needs to be determined with application tests. The Technical Service & Development team at BorsodChem is glad to help you in case any product-related question arises.

Product portfolio

PRODUCT NAME	CHARACTERISTICS						PRODUCT DESCRIPTION	
	NCO% as wt%		Viscosity @ 25 °C as mPa.s		Acidity as ppm HCl			Functionality
	min.	max.	min.	max.	min.	max.		
ONGRONAT® 2100	30.0	32.0	170	230		300	2.6 - 2.7	Standard functionality polymeric MDI for general purpose: it is used for the manufacture of rigid PUR insulating foams, semi rigid integral skin, and structural foams
ONGRONAT® 2300	30.0	32.0	350	450		300	2.7	Polymeric MDI for the manufacture of rigid insulating PUR and PIR foams, semi rigid integral skin and structural foams
ONGRONAT® 2510	30.0	32.0	520	680		300	2.8	Polymeric MDI with high functionality particularly suited for the manufacture of rigid insulating PUR and PIR foams - standard acidity range
ONGRONAT® AP 2310	30.0	32.0	170	230	120	200	2.6 - 2.7	Polymeric MDI with low reactivity providing improved flowability for rigid foams used in domestic appliances
ONGRONAT® CO 2150	30.0	32.0	170	230	90	120	2.6 - 2.7	Polymeric MDI with controlled reactivity for rigid insulation foams applied in the construction industry
ONGRONAT® CO 2160	30.0	32.0	170	230	120	200	2.6 - 2.7	Polymeric MDI with slightly reduced reactivity for rigid foam applications in the construction industry
ONGRONAT® CO 4110	29.0	31.0	170	270			2,6 - 2,7	Polymeric MDI with improved compatibility in high water containing formulations particularly suitable for silicate-containing cavity filling foams
ONGRONAT® TR 2000	30.0	32.0	170	230	90	120	2.6 - 2.7	Polymeric MDI with reactivity controlled in a narrow range finding end use mainly in automotive applications
ONGRONAT® XP 1157	24.0	25.0	375	575			2.1	MDI prepolymer for the production of specialty polyurethane rigid block foams

About BorsodChem

BorsodChem is part of the Wanhua Chemical Group, which is the world's fastest growing producer and marketer of polyurethane raw materials and related products with significant influence on the worldwide PU market. Wanhua's acquisition of the European based BorsodChem in 2011 turned both companies from regional players into one global company and created one of the largest isocyanate producers in the world.

Wanhua is number one MDI manufacturer globally with intellectual property rights, leading global technology and with the largest and most integrated isocyanate manufacturing complex. BorsodChem is leading European producer of MDI, TDI, PVC resins, base chemicals and specialty chemicals. With manufacturing facilities in Hungary and Czech Republic the company is growing steadily throughout Europe and have gained a confident foothold from which to extend its operations further. This long-term development of BorsodChem is secured by the Wanhua Chemical Group through major investment programs, enlarging production capacities in line with market growth, as well as benefiting further from the integration between PVC and isocyanate production.

The group adheres to the highest standard of business ethics and safety standards as well as promotes 'green chemistry' and environmental responsibility. Wanhua-BorsodChem supplies high quality raw materials for all kinds of goods in a wide range of industries with expanding product portfolio and solutions.

www.borsodchem.com
www.whchem.com



Legal statement

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