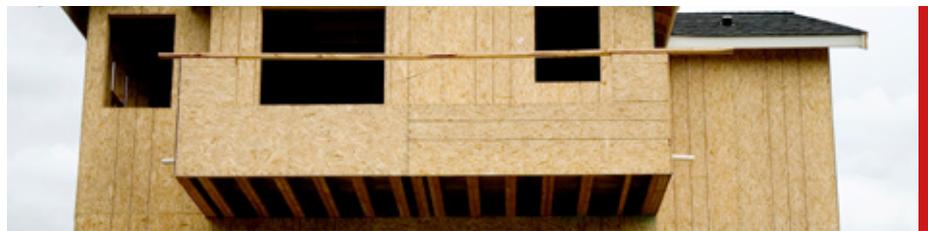
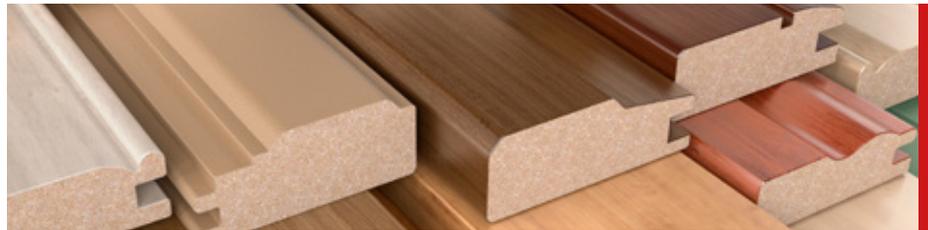




# ONGRONAT® Binders



# BINDERS

## Binders

Polyurethane is widely used as an adhesive material in the production of wood composites including medium-density fibreboard (MDF), high-density fibreboard (HDF), oriented strand board (OSB) and particle board. Using MDI binders in wood composite manufacture results in a strong bond, excellent mechanical strength and good water resistance while being fast curing and free from formaldehyde. MDI is also used as a binder for alternative raw materials such as straw, reed and bamboo.

Binding the particles of various natural or synthetic origin, and recycled materials such as rubber crumb in modern sportsflooring, can create special materials with excellent properties furthermore opens wide horizons for new PU applications.

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.	max.		
ONGRONAT® 2100	30.0	32.0	170	230	300	2.6 - 2.7	Standard functionality polymeric MDI for binding more types of particles, like wood, stone, rock
ONGRONAT® CO 5700	7.5	9.5	3000	5000		2.0	MDI prepolymer specifically designed as 1K adhesive for the construction industry including rubber binding application
ONGRONAT® CO 5750	9.5	11.5	3000	5000		2.2	MDI prepolymer particularly suitable for rubber binding application
ONGRONAT® FB 5450	15.6	17.6	1200	1800		2.3	MDI prepolymer with high viscosity designed as high quality binder for carpet backing, foam rebonding and rubber binding applications
ONGRONAT® FB 5460	19.0	21.0	200	400		2.0	MDI prepolymer used as adhesive in foam rebonding (better elongation)
ONGRONAT® FB 5470	19.0	21.0	550	850		2.3	MDI prepolymer used as adhesive in foam rebonding (harder foam than with ONGRONAT® FB 5460)
ONGRONAT® WO 2750	30.0	32.0	170	230	300	2.7	Polymeric MDI with increased reactivity designed for wood binding
ONGRONAT® WO 4080	29.0	31.0	170	270		2.6	Polymeric MDI product emulsifiable in aqueous medium in contrast with other polymeric MDI types
ONGRONAT® WO 4090	29.0	31.0	170	270		2.6	Polymeric MDI with increased reactivity offering increased productivity in the production of Composite Wood Products
ONGRONAT® XP 1052	8.7	9.9	1900	3500		2.1	MDI prepolymer used as 1K adhesive for rubber crumb particles and for other bonding applications
ONGRONAT® XP 1112	19.8	21.8	150	550		2.0	MDI prepolymer used as adhesive for foam rebonding (better processability & compatibility with fillers such as carbon black)
ONGRONAT® XP 1129	26.0	28.0	200	600		2.6	MDI prepolymer for Composite Wood Panel production offering enhanced reactivity
ONGRONAT® XP 1140	9.0	10.0	1500	3500		2.1	MDI prepolymer used as rubber binder
ONGRONAT® XP 1150	17.0	19.0	550	850		2.1	MDI prepolymer for foam rebonding providing less elastic bonding than ONGRONAT® FB 5460 to ease cutting
ONGRONAT® XP 1161	25.5	27.5	500	900		2.6	MDI prepolymer used as binder for wood fiber insulation boards
ONGRONAT® XP 1166	15.0	17.0	3000	5000		2.5	Multi-purpose MDI prepolymer-based structural wood adhesive
ONGRONAT® XP 1204	9.2	11.2	1400	2200		2.0	MDI prepolymer for soft polyurea coatings

## 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](http://www.borsodchem.com)  
[www.whchem.com](http://www.whchem.com)



## Legal statement

*This information is based on our most recent knowledge. However, the application and processing of the product after sale is beyond our control and we cannot assume responsibility for use of this material outside BorsodChem premises. The user is obliged to check the suitability of this product for the intended use and accepts sole responsibility for compliance with any legal requirements relating to its use. This document does not constitute a warranty or guarantee.*