



ONGRONAT®
ISOCYANATES FOR
FLEXIBLE AND SEMI-RIGID
POLYURETHANE FOAMS



Isocyanates for Flexible and Semi-rigid Polyurethane Foams

Polyurethane fits everywhere in your home, your car and your office! Comfortable, light-weight and durable, PU flexible foam is an excellent cushioning and filling material for seating and mattresses. PU flexible foam is widely used to reduce noise transmission by more than 50% compared with more traditional materials. The foams' great versatility in density and shape makes them popular with both designers and manufacturers, and with end-customers.

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. The suitability of a certain product to the intended application always needs to be determined with application tests. The Technical Service & Development Team of BorsodChem is glad to help you in case any product-related question arises.



BorsodChem's Production Site – Kazincbarcika, Hungary

Product portfolio

AUTOMOTIVE SEATING

Product name	TYPICAL CHARACTERISTICS			Product description
	NCO% as m/m%	Viscosity (@25°C) as mPa.s	Functionality	
ONGRONAT® 1065	48.2	3	2.0	Mixture of 2,4-TDI and 2,6-TDI in a nominal ratio of 65:35 (TDI 65) used for the production of flexible polyurethane foams applied in the automotive industry. Acidity 10 mg/kg HCl
ONGRONAT® NEO 1065 B new	48.2	3	2.0	TDI 65 produced from ISCC certified raw materials obtained from virgin biomass. Acidity 10 mg/kg HCl
ONGRONAT® NEO 1065 C new	48.2	3	2.0	TDI 65 produced from ISCC certified raw materials obtained from waste materials of biological origin. Acidity 10 mg/kg HCl
ONGRONAT® 1080	48.2	3	2.0	Mixture of 2,4-TDI and 2,6-TDI in a nominal ratio of 80:20 (TDI 80) for the production of flexible polyurethane foams used in the automotive industry. Acidity 10 mg/kg HCl
ONGRONAT® NEO 1080 B new	48.2	3	2.0	TDI 80 produced from ISCC certified raw materials obtained from virgin biomass. Acidity 10 mg/kg HCl
ONGRONAT® NEO 1080 C new	48.2	3	2.0	TDI 80 produced from ISCC certified raw materials obtained from waste materials of biological origin. Acidity 10 mg/kg HCl
ONGRONAT® TR 4011	35.9	12	2.1	MDI-TDI blend designed for the production of seat backs with low density, while imparting good physical properties
ONGRONAT® TR 4040	32.6	30	2.2	MDI blend for moulded flexible automotive seating with good support and durability
ONGRONAT® TR 4060	29.0	680	2.7	MDI based isocyanate for automotive headrest (Pour In Place)
ONGRONAT® TR 4120	32.6	25	2.2	MDI blend for the production of moulded flexible foams for automotive seating application
ONGRONAT® TR 5010	29.0	80	2.2	MDI prepolymer for automotive (front) seat application
ONGRONAT® TR 5040	29.1	90	2.2	MDI prepolymer for moulded flexible foams used in the automotive industry to be produced via the PiP (pour in place) technique
ONGRONAT® TR 5050	29.4	75	2.2	MDI prepolymer for the manufacture of moulded flexible foams for automotive seating application
ONGRONAT® TR 5760	24.8	260	2.2	MDI prepolymer designed for high density automotive seating
ONGRONAT® XP 1091	32.7	25	2.2	MDI blend for the production of moulded polyurethane flexible foams for automotive seating
ONGRONAT® XP 1142	32.5	23	2.2	MDI blend for the production of flexible moulded foams for automotive seating

AUTOMOTIVE SOUND INSULATION

Product name	TYPICAL CHARACTERISTICS			Product description
	NCO% as m/m%	Viscosity (@25°C) as mPa.s	Functionality	
ONGRONAT® TR 2000	31.0	200	2.7	Polymeric MDI with reactivity controlled in a narrow range for the production of semi-rigid foams for automotive sound insulation. Acidity 110 mg/kg HCl
ONGRONAT® TR 4001	33.4	45	2.4	MDI-TDI blend designed as component for low density carpet backing providing good flowability and good adhesion
ONGRONAT® TR 4030	31.7	70	2.4	Mid-functionality MDI blend based on polymeric MDI for the production of flexible foams used in automotive sound insulation
ONGRONAT® TR 4100	32.1	55	2.4	MDI blend for sound insulating flexible foams used in the automotive industry
ONGRONAT® XP 1030	32.2	40	2.3	MDI blend for the production of flexible foam parts with low density and higher degree of openness
ONGRONAT® XP 1107	27.6	100	2.2	MDI prepolymer product used in flexible foams for automotive sound insulation
ONGRONAT® XP 1127	32.1	45	2.3	MDI blend for the production of semi-rigid acoustic foam with low density for the automotive industry
ONGRONAT® XP 1152	31.3	75	2.4	An MDI blend for the production of semi-rigid polyurethane foams used for sound insulation
ONGRONAT® XP 1200	29.7	75	2.3	MDI prepolymer for the production of molded flexible foam parts used in automotive sound insulation

INTEGRAL SKIN FOAMS

Product name	TYPICAL CHARACTERISTICS			Product description
	NCO% as m/m%	Viscosity (@25°C) as mPa.s	Functionality	
ONGRONAT® 3800	28.0	60	2.1	Carbodiimide-modified MDI used for the production of integral skin foams, when VOC emission is not a concern
ONGRONAT® TR 5500	25.9	170	2.1	Low functionality MDI prepolymer for integral skin foams
ONGRONAT® XP 1101	29.5	50	2.2	Carbodiimide-uretonimine modified MDI used for integral skin foams, when low VOC emission of the final product is desired

COMFORT

Discontinuous and molded flexible foam

Product name	TYPICAL CHARACTERISTICS			Product description
	NCO% as m/m%	Viscosity (@25°C) as mPa.s	Functionality	
ONGRONAT® 1080	48.2	3	2.0	Mixture of 2,4-TDI and 2,6-TDI in a nominal ratio of 80:20 (TDI 80) for the production of flexible polyurethane foams used in the automotive industry. Acidity 10 mg/kg HCl
ONGRONAT® NEO 1080 B new	48.2	3	2.0	TDI 80 produced from ISCC certified raw materials obtained from virgin biomass. Acidity 10 mg/kg HCl
ONGRONAT® NEO 1080 C new	48.2	3	2.0	TDI 80 produced from ISCC certified raw materials obtained from waste materials of biological origin. Acidity 10 mg/kg HCl
ONGRONAT® FB 5030	25.2	190	2.3	MDI prepolymer for the production of moulded flexible foam parts with low density and higher degree of foam openness
ONGRONAT® FB 5550	27.3	180	2.2	Mid-functionality MDI prepolymer for high resilience / high density foam pads finding end use in office and medical furniture
ONGRONAT® XP 1066	29.7	70	2.3	MDI prepolymer for moulded flexible polyurethane foam parts
ONGRONAT® XP 1123	31.7	25	2.1	MDI prepolymer for cold cure viscoelastic foams
ONGRONAT® XP 1137	28.9	90	2.2	MDI prepolymer for high resilience and viscoelastic flexible polyurethane foams
ONGRONAT® XP 1138	26.9	130	2.3	MDI prepolymer for moulded flexible polyurethane foams
ONGRONAT® XP 1175	31.3	30	2.1	Low functionality MDI prepolymer for the production of moulded viscoelastic flexible foams

Slabstock foam

Product name	TYPICAL CHARACTERISTICS			Product description
	NCO% as m/m%	Viscosity (@25°C) as mPa.s	Functionality	
ONGRONAT® 1065	48.2	3	2	Mixture of 2,4-TDI and 2,6-TDI in a nominal ratio of 65:35 (TDI 65) mostly used for the production of flexible polyurethane foams. Acidity 10 mg/kg HCl
ONGRONAT® NEO 1065 B new	48.2	3	2	TDI 65 produced from ISCC certified raw materials obtained from virgin biomass. Acidity 10 mg/kg HCl
ONGRONAT® NEO 1065 C new	48.2	3	2	TDI 65 produced from ISCC certified raw materials obtained from waste materials of biological origin. Acidity 10 mg/kg HCl
ONGRONAT® 1080	48.2	3	2	Mixture of 2,4-TDI and 2,6-TDI in a nominal ratio of 80:20 (TDI 80) widely used for the production of flexible polyurethane foams. Acidity 10 mg/kg HCl
ONGRONAT® NEO 1080 B new	48.2	3	2	TDI 80 produced from ISCC certified raw materials obtained from virgin biomass. Acidity 10 mg/kg HCl
ONGRONAT® NEO 1080 C new	48.2	3	2	TDI 80 produced from ISCC certified raw materials obtained from waste materials of biological origin. Acidity 10 mg/kg HCl
ONGRONAT® FB 5020	29.1	70	2.2	MDI prepolymer for the production of HR & VE flexible slabstock foams
ONGRONAT® XP 1085	30.0	75	2.3	MDI prepolymer for high resilience and viscoelastic slabstock foams
ONGRONAT® XP 1086	28.7	110	2.2	MDI prepolymer for high resilience and viscoelastic slabstock foams
ONGRONAT® XP 1094	28.3	80	2.1	MDI prepolymer for polyester-based high resilience and viscoelastic slabstock foams
ONGRONAT® XP 1136	32,4	30	2.2	MDI blend for high resilience & viscoelastic and hypersoft polyurethane foams
ONGRONAT® XP 1181	32.5	20	2.1	Low functionality MDI blend for the production of flexible slabstock polyurethane foams

About Wanhua - BorsodChem

Wanhua Chemical Group is a global leading supplier of innovative chemical products covering polyurethanes, petrochemicals, performance chemicals and advanced materials. The company's technology enables the production of MDI, TDI, Polyol, ADI, specialty amines, TPU, PA12, PMMA, PC, PUD, and more.

BorsodChem - part of the Wanhua Chemical Group - is a key European producer of MDI, TDI, PVC resins, base chemicals and specialty chemicals with manufacturing facilities in Hungary and Czech Republic.

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.

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.

www.borsodchem.com

www.whchem.com

Copyright© 2024 – BorsodChem Zrt., all rights reserved – Issue 01/2024