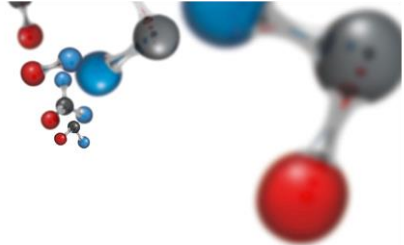


TECHNICAL DATA SHEET (TDS)

ONGRONAT® 3600



- **Product description:** ONGRONAT® 3600 is a mixture of 4,4'-methylene diphenyl diisocyanate and 2,4'-methylene diphenyl diisocyanate
- **Appearance:** Colourless or pale yellow transparent liquid above room temperature, free from any solids
- **Features & benefits of the end product produced using ONGRONAT® 3600:** Weather, chemical and abrasion resistance, Flexibility, High strength, Durability, High bonding
- **Industry:** Construction; Transport; Clothing & Footwear; Furniture, Bedding & Decoration
- **Applications:** Adhesives & Binders, Coating & Sealants, Paints & Coatings, Sports & leisure

SPECIFICATIONS

| Property | Value | Dimension | Test method |
|----------|-----------|-----------|---------------------------|
| NCO | min. 33.4 | wt% | ASTM D5155 |
| Acidity | max. 50 | ppm | BorsodChem Method PAK 126 |

OTHER PROPERTIES*

| Property | Value | Dimension |
|---------------------|---------|-------------------|
| Density [at 25°C] | 1.20 | g/cm ³ |
| Viscosity [at 25°C] | 13 - 15 | mPa.s |
| Flash point | >200 | °C |
| Melting point | <20 | °C |

*Values given in the „OTHER PROPERTIES” section are only typical ones and they are not to be considered as part of the specification.

PACKING, STORAGE & TRANSPORT

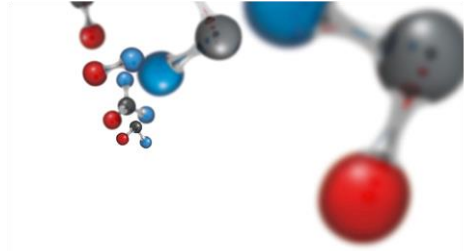
Packing and transport: ONGRONAT® 3600 can be loaded and transported in tank road tankers, 1000 l containers, 225 kg non-returnable metal drums, or in metal cans under nitrogen blanket. The loading temperature of ONGRONAT® 3600 is 40-50 °C in bulk and 25-40 °C in the case of drummed product, or in IBCs. Please note that based on the distance of the destination the delivery temperature may differ from the loading temperature, but still remains in the range of 25-50 °C in the case of bulk product. ONGRONAT® 3600 packed in drums or IBCs should be transported in the range of 25-40 °C. Therefore cold shocks and prolonged exposure of the containers (drums or IBCs) to intensive sunlight needs to be avoided. ONGRONAT® 3600 is shipped according to the above temperature ranges in the lack of any special requirement.

Storage: ONGRONAT® 3600 preserves its quality stored between 25 and 50°C under a nitrogen blanket (dew point: -40°C) for 6 months from the date of production. During storage below 25 °C the quality of ONGRONAT® 3600 may deteriorate. Product must not be stored above 50°C because its colour can change and unwanted dimerisation may occur which leads to the decrease of the NCO content. The product

must not come into contact with water. In order to prevent water (moisture) ingress, nitrogen is used usually (dew point of -40 °C) to displace the air from the drums or containers. It is not advised to use dry air as an inert blanket for the above purpose because due to contact with air or oxygen the colour of the product may change to yellow due to the oxidation. Since carbon dioxide (CO₂) is soluble in isocyanates, it is not recommended to be used as an inert gas either.

TECHNICAL DATA SHEET (TDS)

ONGRONAT® 3600



SAFETY PRECAUTIONS

Handle the material with care. Avoid contact with water and moisture. Reaction with water always results formation of CO₂ and therefore increase of pressure in the closed storage

container. Avoid contact with skin and eyes. Do not inhale the vapours of the product. Detailed safety information available on the www.borsodchem-group.com website and in the specific Safety Data Sheet.

Version: English
Date: 15.07.2015
Technical Data Sheet (TDS)
ONGRONAT® 3600

www.borsodchem-group.com

This information is based on our most recent knowledge. However, the application and processing of the material 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 material 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.



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