

DINITROL 516 A/B

2-component system

The 2-component adhesive system DINITROL 516 A/B consists of a moisture-curing polyurethane adhesive and a reactive accelerator paste. The 2K structural adhesive is suitable for industrial, semi-structural bonding, for example in special container construction, for floor rail, window and floor plate bonding as well as for front mask and side wall bonding in rail vehicles.

- ▶ **Optimal processing time approx. 30 – 50 mins***
- ▶ **Bonding of large geometries possible**
- ▶ **Strong bonding: No flaws, no CO2 bubbles**
- ▶ **Bonding and sealing possible in one step**
- ▶ **OEM approved**
- ▶ **Fast curing and strength build-up, regardless of humidity**
- ▶ **Cycle time reduction (travel times, transfer times, etc.)**
- ▶ **Reliable bonding over time due to controlled strength build-up**

Component A



Component B



Equipment

DINITROL 2K adhesive machine on request

DINITROL Compact Push Dispenser

Art. no. 1700900
1 x 2K cordless gun
1 x aluminium cartridge for foilwrap insertion A/B
1 x 20 V battery
1 x charger

DINITROL Manifold

Art. no. 1701100
15 x merger for mixer

DINITROL Mixer

Art. no. 1701200
15 x mixers
8 x nozzle M20 with collar

DINITROL 516 A/B

Item no.	Size	Packaging	Colour
12486	580 ml	Foilwrap	Black
12558	25 kg	Hobbock	Black
12480	50 kg	Hobbock	Black

DINITROL 516 B

Item no.	Size	Packaging	Colour
12487	58 ml	Foilwrap	White
12482	1 l	Cartridge	White
12481	30 kg	Hobbock	White

DINITROL 516 A/B

Technical data

Characteristic feature

The A-component DINITROL 516 A is a polyurethane adhesive that cures through air humidity to an elastomer with the familiar good adhesive and mechanical properties even without an accelerator paste. The reactive accelerator paste DINITROL 516 B was developed to achieve curing independently of the ambient humidity and the bonding geometry. Both products are compatible with each other. The use of the B component enables early handling of the components. A particular advantage of this 2K system is that no CO₂ is produced when the 2K adhesive hardens. This enables bubble-free bonding and grouting in just one work step.

Processing

Application takes place via commercially available mixing systems. DINITROL 516 A is conveyed from hobbocks, DINITROL 516 B is conveyed from hobbocks or cartridges. The mixing ratio is between 100:6 and 100:10. Mixing is done by special static mixers (>18 elements).

For manual application, DINITROL 516 A/B (MV 100:10) is processed with the DINITROL Compact Push Dispenser (2K cordless gun). Use at room temperature.

The surfaces to be bonded must be cleaned and pre-treated according to our recommendations. The use of DINOL products is only suitable for experienced users. Preliminary tests are recommended for special applications.

Repair

In the event of a necessary repair, the old polyurethane bead is cut down to 1 to 2 mm after cutting out the component (possibly shortly before rebonding). The new bonding should be carried out within 6 hours. The cut-down old bead is reactivated with DINITROL 540 reactivator and a lint-free paper cloth or application foam. The new adhesive must be applied to the dried old bead within 10 minutes. If 10 minutes are not sufficient, reactivation can be repeated.

Further information

The following documents are available online and on request:

- Material safety data sheet
- PUR pretreatment table
- Work instructions DINITROL Compact Push Dispenser



Click here for work instructions

Technical data

DINITROL 516 A/B	reactive polyurethane
Appearance	black paste
Density	approx. 1.2 g/cm ³
DINITROL 516 B	reactive paste
Appearance	white paste
Density	approx. 1.45 g/cm ³
Mixing ratio	100 : 6 to 100: 10 (516 A: 516 B) (V/V)
DINITROL 516 A/DINITROL 516 B	
Resistance	Very good
Processing time/temperature (times may vary depending on the processing equipment used):	
Mixing ratio 100: 10 (V/V)	30 – 40 minutes*
Mixing ratio 100: 6 (V/V)	40 – 50 minutes*
Operating temperature limits	15 °C – 35 °C
Shore A hardness (DIN 53505)	approx. 55
Tensile strength (DIN 53504)	> 7 MPa
Elongation at break (DIN 53504)	> 400 %
Tear resistance (DIN 53515)	approx. 10 N/mm
Tensile shear strength (DIN EN 1465)	> 5 MPa
Tensile shear strength (DIN EN 1465) after 6 hours	> 1.3 MPa
Shear module (DIN 54451)	approx. 1.3 MPa
Throughput speed (DIN 60093)	approx. 10 ⁶ Ωcm
Glass transformation temperature	approx. - 50 °C
Temperature resistance	
Long-term view	< 90 °C
Short term (approx. 1 hour)	< 130 °C
Shelf life (storage at < 25 °C)	Hobbock and foilwrap: 12 months (A comp.), 15 months (B comp.)

23 °C/50 % rel. humidity

Transport

Transport conditions between 0 and 35 °C. During transport, temperatures may be higher or lower (2 – 4 days). In this case, the material must be acclimatised to room temperature before application: for drums, hobbocks, foilwraps and cartridges on pallets, this takes 1 – 2 days. For individual cartridges or foilwraps, it takes 3 – 4 hours.

Approvals and Testing

- Requirements acc. to EN 45545-2:2016-02, table 5, R1 HL1-2, R7 HL1-3.
- Adhesive properties acc. to DIN 6701-3 available on request.
- Aging tests against cleaning agents available upon request.

DINITROL 516 A

Restricted to professional users. Danger; Resp. Sens. 1; H334; EUH204; As from 24 August 2023 adequate training is required before industrial or professional use.

For safety information, refer to the safety data sheet or the label on the packaging.

All data and recommendations are based on careful investigations by our laboratory. They can only be regarded as recommendations that correspond to the current level of experience. The data is provided in good faith. However, due to the large number of possible applications and working methods, we cannot assume any responsibility or obligations arising from incorrect application. A contractual legal relationship is therefore not established and no ancillary obligations arise from any purchase contracts.