

DINITROL 517 A/B

2-component polyurethane adhesive for structural bonding

DINITROL 517 A/B is a 2-component high stability polyurethane adhesive suited especially for structural bonding. It has a pot life of approx. 12 minutes. The pot life is easy to change to achieve application times from 5 minutes to 60 minutes.

- » High strength
- » Outstanding structural bonding
- » Curing can be accelerated by the application of heat (from 60 minutes down to 5 minutes)
- » Stable bead directly after application
- » Reduced equipping and process times



Equipment

INDUSTRIE NITRIL-HANDSCHUHE XL 10-P
Art. No. 1734100

DINITROL CARTRIDGE TOOL 2C
20V CORDLESS
Art. No. 1736300

DINITROL 517 A/B

Art. No.	Size	Package	Color
12288	400 ml	Cartridge	White

Component A

Art. No.	Size	Package	Color
12365	50 kg	Hobbock	White

Component B

Art. No.	Size	Package	Color
12366	25 kg	Hobbock	Brown

DINITROL 517 A/B

Technical Details

Characteristics

DINITROL 517 A/B is a 2-component high stability polyurethane adhesive suited especially for structural gluing. DINITROL 517 A/B has a pot life of approx. 12 minutes. The pot life is easy to change to achieve application times from 5 minutes to 1 hour. Depending on the requirements, the curing can be accelerated by heating.

Features

- 2-component PUR adhesive with high strength
- Excellent structural bonding
- Curing can be accelerated by heating (from 5 up to 60 minutes)
- Directly after application an immediately stable adhesive bead
- Reduce set up and process time

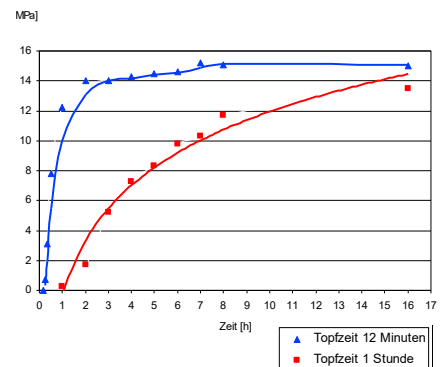
Application

DINITROL 517 A/B may be applied using cartridges or automatic application equipment. Static mixers by the Mixpac company with at least 20 elements or dynamic mixers may be used. DINITROL 517 A/B forms firm beads of adhesive immediately after application.

Storage / Transport

The material must be stored in sealed containers away from moisture at temperatures of 5°C to 30°C. We recommend storing the material in application temperatures. The storage life is 6 months from production.

Strength increase



Tensile shear strength as a function of time.

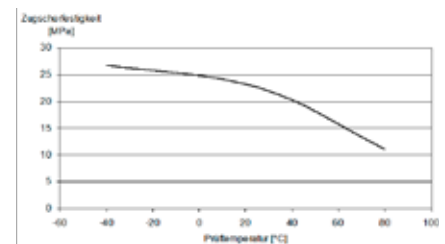
Dimensions of the adhesive surface: 12.5 x 25 x 1 mm
Substrate: EC

Technical Data

DINITROL 517 A	
Appearance	white
OH value	140 ±10 mg KOH/g
Density, 20°C	1.22 ±0.05 g/cm ³
Casson viscosity (23°C) DIN 125	2.5 – 3.0 Pas
DINITROL 517 B	
Appearance	brown
OH value	25 ±1 % weight
Density, 20°C	1.22 ±0.05 g/cm ³
Casson viscosity (23°C) DIN 125	0.3 – 0.5 Pa s
Application information	
Volume	2 : 1 parts
Weight	2 : 1 parts
Working temperature	15 – 30°C
Pot life	8 – 15 min.
Material properties of the cured 2C-PUR adhesive	
Tear strength DIN 53504	20 ±1 MPa
Ultimate elongation DIN 53504	45 ±10%
Tear propagation strength DIN 53515	45 ±2 N/mm
G-modulus DIN 54451	
G-modulus 1.75 mm at 10% slip	85 ±3 MPa
G-modulus 1.75 mm at 20% slip	52 ±3 MPa
G-modulus 1.75 mm at 50% slip	27 ±3 MPa
Tensile shear strength DIN 54451	20 ±1 MPa
Ultimate elongation DIN 54451	100 ±5%
Shore A hardness DIN 53505	98 ±2
Shore D hardness DIN 53505	64 ±2
Glass transition temperature ISO 6721-5	≤ -40°C

1) 23°C / 50% rf

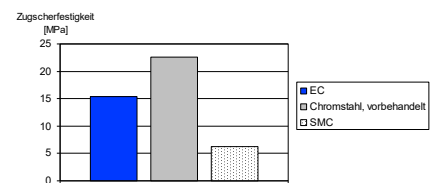
Tensile shear strength as a function of practical temperatures



Tensile shear strength as a function of the test temperature:

Dimensions of the adhesive surface: 12.5 x 25 x 0.2 mm
Substrate: X 40 Cr 13 chrome steel, pre-treated

Tensile shear strength of Dinitrol 517 A/B glued joints



Tensile shear strength after 7 days storage at 23°C. Test temperature: 23°C.

Images of fractures

EC: Top EC layer torn off.
X 40 Cr 13 chrome steel: Primer layer torn from steel.
SMC: Fracture of substrate, at right angle to tensile force

Comp. A - Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation
Skin Sens. 1; H317

Comp. B - Hazards identification

2.1. Classification of the substance or mixture

GB CLP Regulation

Acute Tox. 4; H332; Skin Irrit. 2; H315; Eye Irrit. 2; H319; Resp. Sens. 1; H334; Skin Sens. 1; H317; Carc. 2; H351; STOT SE 3; H335; STOT RE 2; H373

For all relevant safety advices please read the material safety data sheet or the packaging label.

All data and recommendations are the result of careful tests by our laboratory. They only can be considered as recommendation which corresponds to the level of experience of today. The data are given in good faith. However, in view of the multiplicity of possible application and working methods we are not in a position to assume any responsibility or obligations deriving from the misuse of our products. Therefore, a contractual legal relationship is not justified, and there are no secondary obligations arising from any purchase contracts.