TECHNICAL DATA SHEET

Version: 3/2014

Letoxit® PL 81

Description
Letoxit PL 81 is a two-component, high-strength, paste epoxy-based adhesive curing at room temperature. It is designed to adhesive bond a variety of metallic materials, honeycombs, fiber-reinforced composites, wood, rubber and glass. Such materials can be even combined and bonded to one another. Bonded joints exhibit very good mechanical properties at temperatures ranging from –75°C to +80°C.

Appearance
A Component: thixotropic paste of yellow color
B Component: thixotropic paste of blue to purple color

Mixing
Components are mixed in the following ratio (A:B):
- volume: 2:1
- weight: 100:45

Proper mixing ratio must be followed with accuracy of 2 % of component B on component A. For perfect mixing use mixing equipment, if it is not available mix thoroughly (especially along the walls and on the bottom of the vessel).

Pot life
Considering exothermic reaction of both components after mixing, pot life of the mix depends on weighed amounts, mix temperature and used container. Approximately it can be said that pot life amounts to

4 hours	for 50g of mix	at 25°C
2 hours	for 100g of mix	at 25°C

Surface treatment
Surfaces to be bonded must be free from any mechanical impurities and traces of oil or grease and must be dry. Surface pretreatment of parts to be adhesive bonded is a decisive factor affecting strength of the bonded joint. Some materials require special surface pretreatment techniques.

Adhesive application
Apply the adhesive to both surfaces to be bonded using a spatula, brush, or pressure gun. Optimum strength of the bonded joint can be achieved at joint thickness of 0.1-0.2 mm, i.e. if amount of approximately150g/m^2 is applied.

Curing
In 6-8 hours after mixing both components a gel is formed at 25°C, and after 24 hours the bonded parts can be handled To achieve full strength it is necessary postcure at 80°C for 2 hours. Postcure can be accelerated by raising of the temperature to 120°C for 1 hour.

Properties of cured bonded joint

Shear strength at tensile loading according to CSN EN 1465:

Loading temperature	Strength
+20ºC	27-35 MPa

Peel strength according to CSN EN ISO 11339):

+20ºC	2-4 N/mm

Glass transition temperature (according to PN-5M-42, DSC) is 80°C, cured 23°C/24 h,

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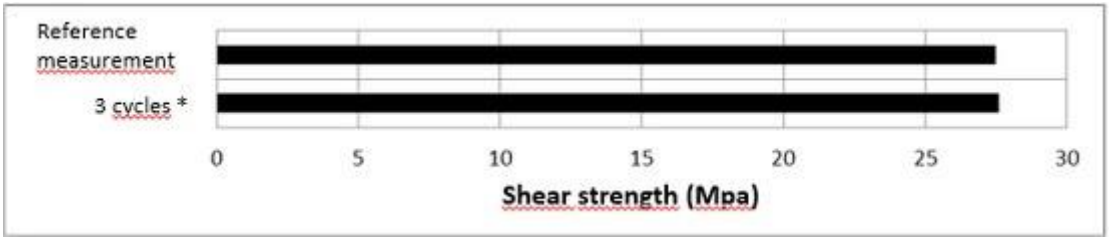
postcuring 2 h at 80°C

Shear strength after cyclic tests

- method: CSN EN 1465
- curing: 24 hours/23°C + 2 hour/80°C
- material: aluminum sheet with 25 mm width and 1,6 mm thickness
- tested at 23°C
- humidity: 100 %
- performance: sheets packed in cotton fabrics soaked in water and in PE film



* +70°C/150 hours +-25°C/16 hours

Packing:

The adhesive is supplied in 200 and 400 ml cartridges or 5 and 10 kg PE cans.

Storage:

Both components of the adhesive should be stored in sealed containers in dry places, apart from each other, protect from direct sunshine, at temperatures ranging from +10°C to +25°C. At 20°C, minimum shelf life is one year.

Safety during processing:

see Safety sheet

Producer and Supplier:

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