

Anaerobic adhesives and sealants

DELO[®]-ML



**Instructions for use &
General information
on the product group**

Application areas

DELO[®]-ML are liquid, one-component adhesives and sealants curing by exclusion of oxygen and under metal influence. They are especially suitable for metallic components. Bonding of plastic is only conditionally possible or if an activator is used.

DELO[®]-ML is the suitable product group for:

- form-closed connecting of axisymmetric components → fixing
- securing of screws → securing screws
- sealing of pipe, screw and flange connections → sealing surfaces, sealing threads

Filling of the complete gap with adhesive additionally involves an optimal corrosion protection.

The different ML types

- low-strength (yellow),
- medium-strength (blue),
- high-strength (green) and
- high-temperature (red)

can be easily distinguished from each other due to their different colors.

Preparation of the components to be bonded

The contact surfaces must be free of oil, grease and other contaminations in order to achieve optimal bond strength. We provide our cleaners DELOTHEN. You can draw more detailed information from the technical information "DELOTHEN Cleaners".

After cleaning, adhesion to the component can be further improved by means of surface pretreatment. You can draw additional details from the written information on surface pretreatment.

The suitability and strength of the adhesive are to be verified on original components under application-specific conditions. DELO[®]-ML 5327 can also be used for oiled surfaces after customer-specific tests.

Processing

The products are supplied ready for use. Depending on the type of delivery, they can be processed manually directly from the container or by means of DELO[®] dispensing units DELOMAT[®]. In the majority of cases, the adhesive is applied to only one component; however, the adhesive can also be applied to both components.

It must be ensured that the complete gap is completely filled with DELO[®]-ML over the entire bonding surface. Thus, trapped air, which can prevent complete curing, is avoided. For securing screws and for sealings, the adhesive is to be applied onto all turns of the thread which are in mesh after assembly.

For blind holes, a sufficient amount must be dispensed to the bottom of the borehole so that air in the borehole can escape. During assembly, the adhesive spreads inside the complete gap due to the radial and axial movement of the screw or the bolt. When applying an adhesive bead for subsequent spreading through the joining pressure, an "open" bead must be ensured. That is to say that the bead must be dispensed in such a way that the adhesive presses the air outwards and the air is not trapped. When sealing surfaces, the use of short-haired roller has proven to be efficient. The roller must be soaked completely in order to prevent trapped air.

Activators

DELO[®]-TOP is used for reducing the curing time when using metallic materials or for achieving normal curing times when using non-metallic materials. (Note: The strength of high-strength anaerobic adhesives is reduced to a medium level when adding DELO[®]-TOP.)

1. Add DELO[®]-TOP to DELO[®]-ML at a ratio of 1 : 1 - 1 : 3.
2. Mix well by shaking. Mixing of the components in a separate vessel is recommended when using pasty products.
3. The ready mixture can be processed like DELO[®]-ML.

Caution: The storage life of the mixture is essentially lower than that of DELO[®]-ML. The amount prepared should not exceed the amount needed per day.

DELO[®]-QUICK is used for accelerating the curing of DELO[®]-ML on metal and passive metal surfaces (zinc-plated, chrome-plated, cadmium-plated, etc.).

1. Apply DELO[®]-QUICK to one surface.
2. Let it evaporate.
3. Apply DELO[®]-ML to the other surface.
4. Join the components.

Curing can also be accelerated and the strength of DELO[®]-ML on inactive metal surfaces can be increased by brushing the components with a brass or copper brush.

Curing

Curing proceeds by exclusion of oxygen and under the catalytic effects of metal ions. It can be accelerated through heat and/or DELO[®]-QUICK for ML.

Anaerobic-light-curing products can be cured anaerobically or by light of the suitable wavelength.

You can draw the detailed, product-specific information on the processing of each product from the respective technical data sheet.

Instructions and advice for occupational health and safety

see material safety data sheet

Storage

In unopened container.

Cool storage is recommendable.

Storage life: see technical data sheet

General

The data and information provided are based on tests performed under laboratory conditions. Reliable information about the behavior of the product under practical conditions and its suitability for a specific purpose cannot be concluded from this.

It is the user's responsibility to test the suitability of the product for the intended purpose by considering all specific requirements. Type and physical and chemical properties of the materials to be processed with the product, as well as all actual influences occurring during transport, storage, processing and use, may cause deviations in the behavior of the product compared to its behavior under laboratory conditions. All data provided are typical average values or uniquely determined parameters measured under laboratory conditions.

The data and information provided are therefore no guarantee for specific product properties or the suitability of the product for a specific purpose.

If you have any further questions

Please contact us.

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