

DELO

Instructions for Use &
General Information
on the Product Group

DELO®-GUM

One-component silicones and sealants



Application areas

DELO-GUM 1C silicones are one-component adhesives and sealants based on polysiloxane connections. They are used as permanently elastic adhesives and as sealants, casting compounds and fixing compounds in electrical engineering, electronics, tool construction, mechanical engineering, precision engineering and the glass industry.

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 DELOTHEN cleaners. You can find more details in the "Cleaners" technical information.

After cleaning, adhesion to the component can be further improved by surface pretreatment. You can find further information in the written information on surface pretreatment.

The suitability and strength of the adhesive are to be verified on original components under application-specific conditions.

If the materials to be bonded are made of rigid base materials and the component are subject to high humidity, priming with DELO-PRE 3003, a special primer for silicones, is recommendable.

Preparation of the adhesive

The products are usually supplied ready for use. You can find further information in the Technical Data Sheet.

Processing

Depending on the scope of delivery, the products can be processed manually directly from the container (Euro cartridge dispensing gun) or by means of DELO dispensing units.

Please check the product-guiding parts, such as dispensing valves and product tubes, for compatibility with the adhesive or the components.

Euro cartridges

1. Cut the Euro cartridge tip.
2. Screw on the dispensing tip.
3. Insert the Euro cartridge into the dispensing gun.

DELOMAT with Euro cartridge retainer

1. Insert the cartridge into the cartridge pipe.
2. Screw the swivel nut of the pressure tank cover tightly onto the cartridge pipe.
3. If necessary, put the cartridge pipe with the cartridge through the retaining bent.
4. Cut the cartridge tip at its upper end.
5. Carefully screw the cartridge into the thread of the valve or attach the adapter for the flexible discharge site. Caution!! Make sure that the o-ring is inserted correctly!!

Remember that 1-component silicones form skin after approx. 5 minutes (at 50 % relative humidity) at the ambient air, which might influence wetting of the second component negatively. Therefore, application and joining must be completed within this period of time in order to avoid an impairment of the composite quality.

When applying silicone to larger areas, a scraper or a notched trowel should be used so that the surface wetting is as ideal as possible.

Processing from open containers/hobbocks

1. Remove cover
2. When using in-liners: Open aluminum bottom bag
 - a) Turn it and cut a cross of approx. 10 cm. Afterwards, insert the feeding pipe through the cross cut or
 - b) Cut open the product foil and put it around the hobbock
3. Insert follower plate

Opened containers with DELO-GUM must be used up within a maximum of 4 weeks (surroundings: +23 °C, max. 50 % rel. humidity). It must be ensured that the stored adhesive is hermetically closed (e.g. by the barrel follower plate on the supplied container) to prevent entering of air and humidity. Reclosing and later reuse is not intended.

Products containing a filler that might sediment, must be homogenized through appropriate measures before use (e.g. tumbling in the supplied container) and kept homogeneous within the above processing time (e.g. storage tank with stirring element). Details can be found in the Technical Data Sheets.

Please check the product-guiding parts, such as dispensing valves and product tubes, for compatibility with the adhesive or the components.

When using cleaners, please note our indications for substances compatible with the specific adhesive.

During maintenance work, product exchange, etc. on dispensing systems, we recommend exchanging the product-guiding lines instead of cleaning or rinsing them.

Curing

One-component silicones cure under the influence of humidity. Curing starts at the surface of the silicone.

Complete curing of the depths of the silicone rubber proceeds at a speed of approx. 2 mm/24 h with 50 % rel. humidity. Larger layer thicknesses and area bondings require longer curing times as the diffusion speed of the humidity into the product decreases with the increasing, cured layer. Increased air humidity concentrations accelerate the reaction, lower concentrations decelerate curing.

During curing of 1-component silicones, low-molecular decomposition products are formed which are dependent on the product. Reactions of the decomposition products (oximes, amines or acetic acid) impairing the function of the components must be clarified in advance or determined in tests.

You can find the detailed, product-specific information on the processing of each product in the specific Technical Data Sheet.

Instructions and advice for occupational health and safety

See Material Safety Data Sheet

Storage

In unopened original container

Cold and dry storage is recommendable.

Storage life: see Technical Data Sheet

Additional instructions for products in Euro cartridges: Store cartridges in upright position. Horizontally stored cartridges may become leaky and cause dispensing problems.

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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 customer's responsibility to test the suitability of a product for the intended purpose by considering all specific requirements and by applying standards the customer deems suitable (e. g. DIN 2304-1). Type, 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. Nothing contained herein shall be construed to indicate the non-existence of any relevant patents or to constitute a permission, encouragement or recommendation to practice any development covered by any patents, without permission of the owner of this patent. All products provided by DELO are subject to DELO's General Terms of Business. Verbal ancillary agreements are deemed not to exist.

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01/19