

Instructions for Use &
General Information
on the Product Group

DELO® MONOPOX Anhydride

One-component adhesives and encapsulants
on the basis of anhydrides



Application areas

DELO MONOPOX products on the basis of anhydrides are predominantly used for bonding, fixing and casting in electronics, microelectronics, and electrical engineering. They are characterized by high reliability and resistance to temperatures and chemicals.

A heat curing step is necessary. The DELO MONOPOX anhydride adhesives can be cured at a temperature of +100 °C and up.

It is the user's responsibility to the the suitability and strength of the adhesive on original components for the intended purpose by considering all specific requirements.

Processing

Preparation/pretreatment → Application → Joining → Heat curing

Pretreatment/preparation of the components to be bonded

The contact surfaces must be free of humidity, grease and other contaminations in order to achieve optimal bond strength.

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.

Possible condensation water on components must evaporate before adhesive application. For optimal results, the FR4 substrates must be dried.

Preparation of the adhesive

The products are supplied ready for use. After conditioning, they can be processed by means of DELO dispensing units.

The adhesive must be conditioned to room temperature in the supplied original container without adding heat in good time before bonding (see Technical Data Sheet).

Condensation water on the adhesive and the substrate must be prevented.

The adhesive must not be frozen and thawed again.

Storage temperature	The conditioning time of containers up to 10 ml	The conditioning time of containers up to 50 ml	The conditioning time of containers up to 310 ml
Storage temperature -18°C	approx. 0.5 h	approx. 1 h	approx. 3 h
Storage temperature -40°C	approx. 1 h	approx. 2 h	approx. 4 h

Adhesive application/joining

When the adhesive has been applied, processing should continue quickly as adhesives on the basis of anhydrides are sensitive to hydrolysis in uncured condition due to their chemical nature.

Too long exposure to humidity may influence the properties that can be achieved, such as adhesion or glass transition temperature.

Larger areas and thick layers are particularly critical. Due to the large surface/volume ratio, much humidity can be absorbed within a short period of time.

Dispensing valves and product-guiding components must be thoroughly cleaned directly after use of the adhesives. Acetone is a suitable cleaner. Alcohol-containing or aqueous cleaners must not be used.

Curing by heat

The adhesive is cured by heat. The curing temperatures and time are product-specific and can be found in the specific Technical Data Sheet. The heating time of the components must be added to the curing time. Heating can proceed in air convection ovens, with IR transmitters, or with other suitable heat sources. If the temperatures used for curing are below the temperature ranges specified in the Technical Data Sheet, the product cures incompletely or does not achieve the values specified.

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

After delivery, remove the package from the dry ice and condition to the storage temperature in unopened condition for at least 4 h (see figure).

Please make sure that frozen container is only minimally touched as large temperature difference between container and adhesive may lead to the adhesive becoming “detached” from the inner cartridge wall. It is recommended that the container is removed at its rear end or thermally insulating gloves are used.

Storage life and storage temperature can be drawn from the Technical Data Sheet

Storage in unopened original container.

Innen / Inside

Instructions for frozen package (-18°C)
How to handle frozen DELO adhesives after arrival

1 Unpacking
Unpack the adhesive

1 打开外包装
取出装有胶水的纸箱

2 Storage
Store in a freezer at -18°C in unopened box for at least 4 hours prior to step 3

2 储存
进入第三步前，请将纸箱原封不动在-18°C冷冻室中至少储存4小时

3 Conditioning
Allow the adhesive to adjust to room temperature prior to use

3 回温
使用前，请将胶水的温度恢复至室温(+23°C)

冷冻包装操作指南 (-18°C)
怎样处理冷冻包装的 DELO 胶水

Handling of dry ice package -18°C storage

Innen / Inside

Instructions for frozen package (-40°C)
How to handle frozen DELO adhesives after arrival

1 Unpacking
Unpack the adhesive

1 打开外包装
取出装有胶水的纸箱

2 Storage
Store in a freezer at -40°C in unopened box for at least 4 hours prior to step 3

2 储存
进入第三步前，请将纸箱原封不动在-40°C冷冻室中至少储存4小时

3 Conditioning
Allow the adhesive to adjust to room temperature prior to use

3 回温
使用前，请将胶水的温度恢复至室温(+23°C)

冷冻包装操作指南 (-40°C)
怎样处理冷冻包装的 DELO 胶水

Handling of dry ice package -40°C storage

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07/17

Adhesives

Dispensing

Curing

Consulting

DELO