BÄDER®

Technical Data Sheet
Anaerobic Threadlockers

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Contents

1. Greenmark®

The sub-brand Greenmark® comprises all marking systems of Lackfabrik Bäder GmbH & Co. KG, which are free of hazardous substances and have a particularly gentle effect on people and the environment.

It is the result of Bäder®'s strategic decision to rely largely on high-performance water-based marking systems for new developments and thus to decisively improve the ecological footprint. The Zero range marks the beginning and will be completed by further high-performance systems this year and in the coming year.

Properties of all Greenmark® products

- → HAP-free
- → No dangerous goods
- → Insulating
- → Good media resistance

Designed for the future

2. Comparison of our threadlockers

2.1 Technical data

Uncured product	B222 Eco - low-strength	B243 Eco - medium-strength	B270 Eco - high-strength
Chemical base	Modified acrylate	Modified acrylate	Modified acrylate
Viscosity*	800 - 1500 mPas	1500 - 4000 mPas	300 - 900 mPas
Density**	1,08 - 1,10 g/ml	1,08 - 1,10 g/ml	1,09 - 1,13 g/ml
Flash point***	> 65 °C	> 65 °C	> 65 °C
Working temperature	10 - 40 °C	10 - 40 °C	10 - 40 °C
Max. screw size	M36	M36	M20
Hardened product			
Breakaway torque	5,5 - 11,5 Nm	15 - 25 Nm	>35 Nm
Temperature application range	-55 - 180 °C	-55 - 180 °C	-55 - 180 °C
Hardening properties			
Tangible after	ca. 5 - 15 min	ca. 5 - 15 min	ca. 5 - 15 min
Functional strength	ca. 3 -6 h	ca. 3 -6 h	ca. 3 -6 h
Final strength	ca. 12 - 24 h	ca. 12 - 24 h	ca. 12 - 24 h

* At 25 °C, Brookfield viscometer.

** Measured according to DIN 53217, part 2 Density ball model 475/III

*** Measured according to DIN 51755

3. B222 Eco - Threadlocker low strength

3.1 Overview

The product cures (polymerises) in the absence of air-oxygen (anaerobic) and the catalytic action of the metal (metal contact). B222 Eco low-strength seals and closes many types of screw connections.

Properties

- → Fast curing on a wide range of ferrous metals
- → High resistance to vibration
- → Secured screws easy to dismantle with tools
- → High oil compatibility

Compared to conventional anaerobic adhesives, the Greenmark® products from Bäder® are completely label-free. In addition to a longer shelf life of 24 instead of 12 months, they also offer the user improved storage stability as well as increased temperature resistance of up to +180° C in use.

Available containers and maximum screw sizes

Container	Max. screw sizen
Bottle 10 ml	M36

Colours and item numbers

	Colour	RAL	Item no.
●	Purple, fluorescent	-	#73300

3.2 Technical data

Uncured product

Chemical base	Modified acrylate
Viscosity*	800 - 1500 mPas
Density**	1,08 - 1,10 g/ml
Flash point***	> 65 °C
Working temperature	10 - 40 °C

* At 25 °C, Brookfield viscometer.

** Measured according to DIN 53217, part 2 Density ball model 475/III

*** Measured according to DIN 51755

Hardened product

Breakaway torque	5,5 - 11,5 Nm
Temperature application range	-55 - 180 °C

Hardening properties

Tangible after	ca. 5 - 15 min
Functional strength	ca. 3 -6 h
Final strength	ca. 12 - 24 h

Storage and shelf life

The shelf life is 24 months at the optimum storage temperature of 5 °C to 23 °C in the sealed original container. A higher storage temperature leads to a significantly shorter shelf life. The storage temperature must not fall below 5 °C.

3.3 Application information

Low-strength threadlockers are not suitable for: Metal-plastic flange connections, in areas where gaseous oxygen is used and sealing against media with strongly oxidising acids.

The product is only to be used on standard metal threads. The affected surface must be free of grease and completely clean. Then use the threadlocker to completely fill the gap between the two parts, assemble the parts and seal them completely. Insufficient sealing can lead to leakage after a certain time. Do not move the parts once the curing process has started.

Allow the bonding to cure completely for 24 hours before putting into operation. In case of series production, lock or secure the bonding with a pipe wrench to avoid breaking the layer that is already in the curing process. Before using the product, please consult the safety data sheet.

4. B243 Eco - Threadlocker medium strength

4.1 Overview

The product cures (polymerises) in the absence of air-oxygen (anaerobic) and the catalytic action of the metal (metal contact). B243 Eco medium strength seals and closes many types of screw connections.

Properties

- → DVGW approval (DIN EN 751-1 Class H)
- → Fast curing on a wide range of ferrous metals
- → High resistance to vibrations
- → Secured screws moderately difficult to dismantle with tools
- → Increased oil compatibility

Compared to conventional anaerobic adhesives, the Greenmark® products from Bäder® are completely label-free. In addition to a longer shelf life of 24 instead of 12 months, they also offer the user improved storage stability as well as increased temperature resistance of up to +180° C in use.

Available containers and maximum screw sizes

Container	Max. screw sizen
Bottle 10 ml	M36
Accordion bottle 50 ml	M36

Colours and item numbers

	Colour	RAL	Item no.
●	Blue, fluorescent	-	#74000

4.2 Technical data

Uncured product

Chemical base	Modified acrylate
Viscosity*	1500 - 4000 mPas
Density**	1,08 - 1,10 g/ml
Flash point***	> 65 °C
Working temperature	10 - 40 °C

* At 25 °C, Brookfield viscometer.

** Measured according to DIN 53217, part 2 Density ball model 475/III

*** Measured according to DIN 51755

Hardened product

Breakaway torque	15 - 25 Nm
Temperature application range	-55 - 180 °C

Hardening properties

Tangible after	ca. 5 - 15 min
Functional strength	ca. 3 -6 h
Final strength	ca. 12 - 24 h

Storage and shelf life

The shelf life is 24 months at the optimum storage temperature of 5 °C to 23 °C in the sealed original container. A higher storage temperature leads to a significantly shorter shelf life. The storage temperature must not fall below 5 °C.

4.3 Application information

Medium-strength threadlockers are not suitable for: Metal-plastic flange connections, in areas where gaseous oxygen is used and sealing against media with strongly oxidising acids.

The product is only to be used on standard metal threads. The affected surface must be free of grease and completely clean. Then use the threadlocker to completely fill the gap between the two parts, assemble the parts and seal them completely. Insufficient sealing can lead to leakage after a certain time. Do not move the parts once the curing process has started.

Allow the bonding to cure completely for 24 hours before putting into operation. In case of series production, lock or secure the bonding with a pipe wrench to avoid breaking the layer that is already in the curing process. Before using the product, please consult the safety data sheet.

5. B270 Eco - Threadlocker high strength

5.1 Overview

The product cures (polymerises) in the absence of air-oxygen (anaerobic) and the catalytic action of the metal (metal contact). B270 Eco high-strength seals and closes many types of screw connections.

Properties

- → Fastening of bolts in as-delivered condition, even with minor contamination
- → Fastening of stud bolts as well as ball and roller bearings, which no longer need to be loosened
- → Particularly suitable for heavily stressed screw connections

Compared to conventional anaerobic adhesives, the Greenmark® products from Bäder® are completely label-free. In addition to a longer shelf life of 24 instead of 12 months, they also offer the user improved storage stability as well as increased temperature resistance of up to +180° C in use.

Available containers and maximum screw sizes

Container	Max. screw sizen
Bottle 10 ml	M20
Accordion bottle 50 ml	M20

Colours and item numbers

	Colour	RAL	Item no.
●	Green, fluorescent	-	#75000

5.2 Technical data

Uncured product

Chemical base	Modified acrylate
Viscosity*	300 - 900 mPas
Density**	1,09 - 1,13 g/ml
Flash point***	> 65 °C
Working temperature	10 - 40 °C

* At 25 °C, Brookfield viscometer.

** Measured according to DIN 53217, part 2 Density ball model 475/III

*** Measured according to DIN 51755

Hardened product

Breakaway torque	>35 Nm
Temperature application range	-55 - 180 °C

Hardening properties

Tangible after	ca. 5 - 15 min
Functional strength	ca. 3 -6 h
Final strength	ca. 12 - 24 h

Storage and shelf life

The shelf life is 24 months at the optimum storage temperature of 5 °C to 23 °C in the sealed original container. A higher storage temperature leads to a significantly shorter shelf life. The storage temperature must not fall below 5 °C.

5.3 Application information

High-strength threadlockers are not suitable for: Metal-plastic flange connections, in areas where gaseous oxygen is used and sealing against media with strongly oxidising acids.

The product is only to be used on standard metal threads. The affected surface must be free of grease and completely clean. Then use the threadlocker to completely fill the gap between the two parts, assemble the parts and seal them completely. Insufficient sealing can lead to leakage after a certain time. Do not move the parts once the curing process has started.

Allow the bonding to cure completely for 24 hours before putting into operation. In case of series production, lock or secure the bonding with a pipe wrench to avoid breaking the layer that is already in the curing process. Before using the product, please consult the safety data sheet.

6. Disclaimer

The above information in this technical data sheet (TDS), in particular suggestions for the processing and range of application of our products, is based on our current knowledge and experience. Due to the different application possibilities and the application and working conditions beyond our control, we do not assume any liability for the suitability of our products for the relevant production processes under the specific working conditions as well as the intended processing purposes and results. In order to ensure such suitability, we recommend in any case sufficient prior self-trials and tests.

Any liability resulting from the instructions in this technical data sheet and any other written or verbal advice for the present product is expressly excluded, unless otherwise agreed in an individual contract, in the event of injury to life, limb or health, in the event of intent or gross negligence on our part or in the event of liability under mandatory product liability law.

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