



TECHNICAL DATA SHEET
Anaerobic curing adhesives

4100

Threadlocker high strength MV

Advantages	Characteristics
Extremely high strength for permanent joints.	PFAS-free
Protection against unintentional loosening	No hazard symbols
Certified for sensitive areas.	Made in Switzerland

Certificates

ANSI/NSF Standard 61, NSF S6

Product Description

Anaerobic adhesives are liquid, single-component adhesives that cure at room temperature to a solid polymer when confined between metal surfaces in the absence of air. The cured adhesive fills gaps and, depending on the application, supports securing, sealing, or load transmission within the joint.

4100 is a high-strength thread locker for the permanent fixing of screws or studs. Suitable for applications that rarely or never need to be disassembled. Very difficult to remove with standard tools.

The product is certified according to ANSI/NSF Standard 61 for use in potable and process water up to +82°C. NSF S6 listed for use in food processing environments.

Field of Application

For screw connections that should remain permanently fixed, e.g., in safety-critical applications.

Application

The threads must be free of dust, grease, and dry. We recommend thorough cleaning with our 9190 Cleaner. It must completely evaporate before applying the adhesive. For inactive metal surfaces or slow curing, spray either the internal or external thread with Activator 4900 and allow it to dry. Detailed information can be found in the technical data sheet of the activator. For through holes: apply sufficient product to the screw where the nut will sit.

For blind holes: apply several drops along the inside of the thread down to the bottom of the hole. To prevent nozzle clogging from cured product, the tip must not touch the metal surfaces during dispensing. The wetted thread must be assembled quickly and tightened with a torque (> 5 Nm). Assemble and tighten parts as usual. Afterwards, the thread/screw must not be rotated again, otherwise strength may be reduced.

Apply the anaerobic adhesive or sealant sparingly. Avoid excess or wipe it off if necessary. To prevent excess adhesive inside the pipe, the first two threads – or at least the first thread of the external thread if technically unavoidable – should remain free of adhesive. Allow the adhesive to cure for at least 24 hours. The system should be flushed with water before commissioning.

Disassemble by using standard hand tools. On rare occasions when hand tools do not work due to excessive engagement and/or because a high-strength adhesive has been used, disassemble by applying localized heat of $\geq 250^{\circ}\text{C}$ to the bonded area. Disassemble parts while hot.

Properties

Property	Value	Method
Chemical Base	Dimethacrylate ester	
Colour	Red (fluorescent)	
Density	1.10 g/cm ³	Calculated
Flash Point	> 100 °C	
Viscosity	4.000 - 7.000 mPas	Brookfield RVT 3 / 2.5 /s, 25°C
Viscosity	1.200 - 1.800 mPas	Brookfield RVT 3 / 20/s, 25°C
Viscosity	1.500 - 5.500 mPas	DIN EN 53019-1: K40 S1, 25°C
Viscosity	600 - 1.000 mPas	DIN EN 53019-1: K40 S35, 25°C
Maximum thread size	M 36	
Maximum gap	0.25 mm	

Curing

Property	Value	Method
Handling Strength	3 - 6 min	DIN EN 15865, 23 °C *
Functional strength	0.5 - 1 h	DIN EN 15865, 23 °C *
Final Strength after	1 - 3 h	DIN EN 15865, 23 °C *

* Measured on bolt M10 × 35 – nut 0.8d (steel grade 8.8, black-phosphated), without preload

Mechanical properties

Property	Value	Method
Steel (8.8)		
Breakaway torque	40 Nm	DIN EN 15865, 23 °C *
Prevailing torque	20 - 30 Nm	DIN EN 15865, 23 °C *
INOX A4		
Breakaway torque	11 Nm	DIN EN 15865, 23 °C *
Prevailing torque	10 - 20 Nm	DIN EN 15865, 23 °C *
Steel (8.8) blue zinc-plated		
Breakaway torque	13 Nm	DIN EN 15865, 23 °C *
Prevailing torque	5 - 10 Nm	DIN EN 15865, 23 °C *
Brass		
Breakaway torque	14 Nm	DIN EN 15865, 23 °C *
Prevailing torque	10 - 20 Nm	DIN EN 15865, 23 °C *
Shear strength (in compression)	19 N/mm ²	DIN EN ISO 10123
Tensile Shear Strength	-	(DIN EN 15870)
Temperature Range	-55 - 150 °C	

* Measured on bolt M10 × 35 – nut 0.8d, 5 Nm preload

Product Offering

Containers	50g 250g	Bulk containers on request
Shelf life	18 mo	10 - 250 g
	6 mo	1 kg
	4 mo	2 kg
	2 mo	5 / 10 kg
Usable with	Cleaner 9190	
	Activator 4900, 4910, 4920	

Notes

Due to the strongly accelerating effect of copper or copper-containing alloys, curing may start during the joining process. This can lead to microcracks, which may cause possible leaks later. Therefore, we strongly recommend preliminary tests to ensure process reliability when sealants are used in copper-containing connections that will be in long-term contact with water above 40 °C. Determining the suitability of the products for the specific application and bonding process is the responsibility of the user.

Disclaimer

We provide technical application advice to the best of our knowledge. All information regarding suitability and application does not release the purchaser from performing their own tests. Our advice is non-binding. Application and processing are outside our control and the user is responsible. We guarantee product quality under our general sales conditions. Please also refer to the safety data sheet.

30.04.2026