



precote 50

High-Strength and Heat-Resistant Thread Locker for Screws \leq M4

Description

precote 50 is a varnish-like, solvent free coating system based on microencapsulated acrylates for sealing and locking of threaded parts. The dried film is tack-free and non-sticky.

Its characteristics as a locking element become effective only when the capsules are ruptured by shear and pressure stress and the set-free components are allowed to cure.

The securing effect was confirmed by the vibration test according to Junker DIN 65151 und ISO 16130.

Application

precote 50 is a high-strength and heat-resistant thread locking coating. It can be used on all external and internal threads size up to M4.

precote 50 can be used in all kinds of assembly procedures, particularly series production. Areas of application are electronics, two wheel and automotive industry, household appliances, office machines, computer industry, electric motors, e-mobility, etc.

Properties

- Fast Curing
- Constant assembly properties
- Service Temperature up to +180°C (+356°F) (DIN 267-27)
- Good chemical resistance
- Dry and tack free coating
- Captive part of the thread
- Non-destructive dismantling after breaking loose
- Prevents corrosion in the threaded connection
- Contains UV marker

Technical data

Chemical Type		Acrylate	
Color ¹		green	
Thread friction μ_{Thread}^2		> 0,2	
Curing time ³ at RT to final strength		ca. 72h	
Curing time ³ at RT to exceed the values according to DIN 267-27		6h	
Torques		M_{IN} ³	M_{LB} ⁴
		M2	< 0.1 Nm
		M3	< 0.1 Nm
		M4	< 0.2 Nm
		M5	< 0.5 Nm
		M6	< 0.8 Nm
Temperature range ³		-60°C to +180°C -76 °F to 356°F	
Chemical resistance tested according to all current automotive standards and DIN 267-27, storage time 1000h		Test temperature	
		Engine oil	150°C
		Super-grade gasoline	23°C
		DOT4 brake fluid	90°C
		Anti-freeze 100%	120°C
		Anti-freeze/Water 50:50	120°C
		Automatic transmission oil	150°C
		Transmission oil	120°C
		Polyurea AdBlue®	23°C

¹ The specified color is not a primary product feature. The color may vary slightly due to the manufacturing process and the formulation. This does not affect the quality of the product.

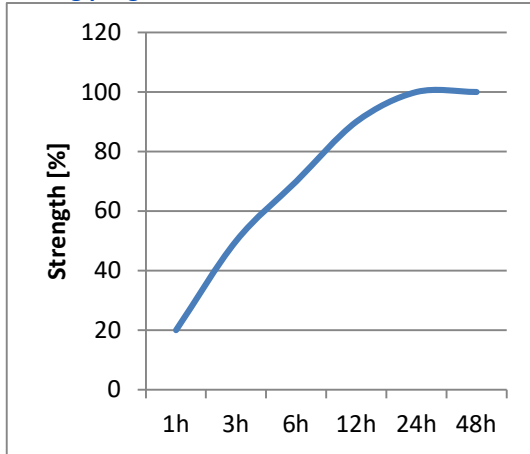
² Test according to DIN EN ISO 16047. All values apply to screws M10 ISO 4017-8.8 plain finish and nuts M10 ISO 4032-10 plain finish. All other surfaces could deliver different values.

³ Test according to DIN 267-27. All values apply to screws ISO 4017-8.8 plain finish and nuts M4 ISO 4032-10 plain finish. All other surfaces could deliver different values.

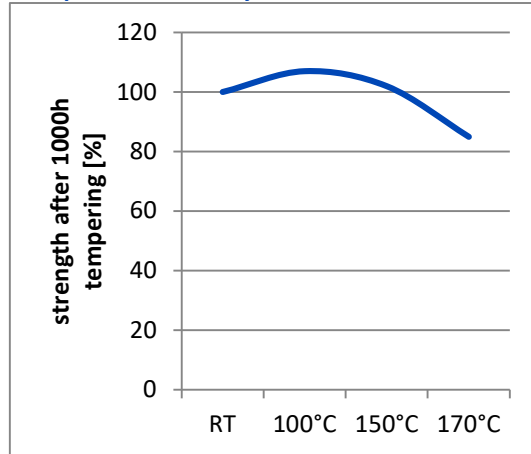
⁴ Prevailing-in torque M_{IN}

⁵ Strength M_{LB}

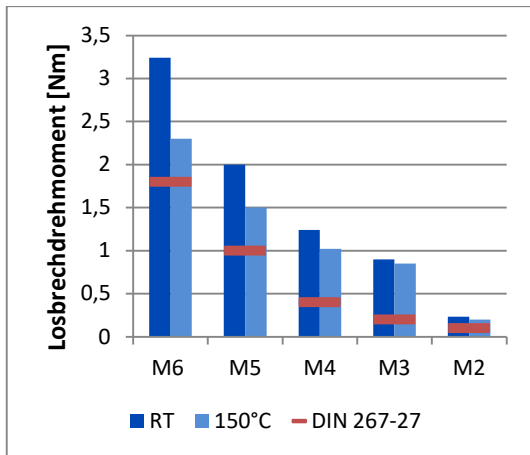
Curing progress



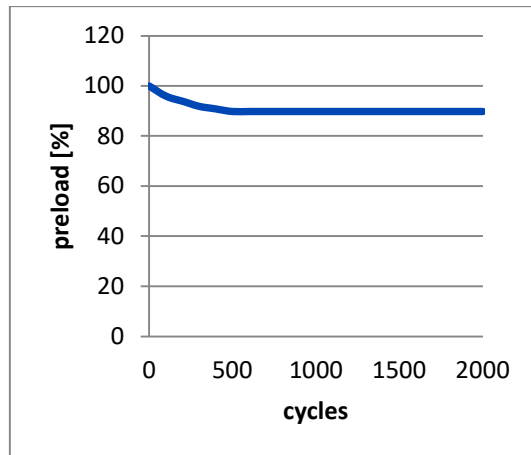
Temperature stability after 1000h



Range of strength without preload BAT tested according to DIN 267-27¹



Vibration test according to Junker DIN 65151 and ISO 16130



¹ All values apply to screws ISO 4017 8.8-plain finish and nuts ISO 4032 plain finish. All other surfaces could deliver different values.

² All values apply to screws ISO 4017 M10x35-8.8-plain finish and nuts ISO 4032 M10-10-plain finish. All other surfaces could deliver different values.

All versions precote 50 meet and exceed technical specifications of following companies

Aisin, Audi, Autoliv, BASF, Bendix, BMW, Bosch, Bridgestone/Firestone, Brose, Chrysler, Continental, Cummins, DAF, Daimler, Dana, Delphi, Denso, Faurecia, Fiat, Ford, Geely, General Motors, Getrag, Hitachi, Honda, Hyundai, Kia, Hyundai Mobis, Johnson Controls, KWC, Lear, Magna, Magneti Marelli, Mahle, MAN, Michelin, Opel, Panasonic (Matsushita Electric), Porsche, PSA, Renault, Rover, Saab Scania, Schaeffler, Siemens, Stihl, Tesla, Toyota, TRW Automotive, Valeo, Volvo, VW, ZF Friedrichshafen and many more

Storage

Shelf-life of coated parts 4 years at max. 30°C and max. 65% relative humidity.
Please note the omniTECHNIK packaging information.

June 2021

Note: As we do not know the specimen, dimensions, materials, combinations, surface conditions etc. of the threads in question, it is absolutely essential to run quality tests prior to general use to make sure about the required performance under field conditions. Our guarantee is confined to supplying precote in proper quality. In view of the fact that processing of precote by the coating partner and the application of precote coated parts are beyond our control we cannot guarantee for the quality of parts coated with precote and assemblies made thereof. We accept liability for the fitness of our products for

particular purposes and liability for particular qualities of our products only in the event that we have accepted such liability in writing in the individual case. In any event any justified warranty claims shall be limited to the delivery of replacement goods which are free from defect or, in the event that such subsequent improvement fails, to reimbursement of the purchase price. Any and all further claims, in particular but without limitation any liability for consequential damage, shall be excluded.