



## precote 85

precote 85-3, precote 85-8

### High-Strength and Heat-Resistant Thread Coating with Controlled Friction

#### Description

precote 85, precote 85-3 and precote 85-8 are varnish-like, solvent-free coating systems based on microencapsulated acrylates for sealing and locking of threaded parts. The dried film is tack-free and non-sticky. The microcapsules are destroyed by compressive and shear stress during assembly, and the released components mix and harden.

#### Application

All versions of precote 85 are high strength thread locking coatings with controlled friction and a locking effect even at high temperatures. They can be used on all types of external and internal threads.

- precote 85: for threads > M6 and pitches > 1mm
- precote 85-3: accelerated curing for threads > M6  
Yellow UV marker visible under UV light
- precote 85-8: for threads ≤ M6 or pitches ≤ 1mm to max. M10x1  
White UV marker visible under UV light

The physical data and chemical resistance of precote 85-3 and precote 85-8 match with the data of the standard version precote 85 after complete curing.

The coating can be used in all kind of assembly procedures, particularly for serial production.

Areas of application are electronics, two wheel and automotive industry, household appliances, office machines, computer industry, electric motors, e-mobility, etc.

## Properties

- precote 85 and precote 85-8 exceed the required values of DIN 267-27 after 6 hours curing at RT. Fast curing precote 85-3 exceeds these values after 30 minutes
- Controlled thread friction
- Constant assembly properties
- Temperature range up to +170°C (+340°F) (DIN 267-27), resp. +200°C (+390°F) (GMW 14657)
- Good chemical and temperature resistance
- Forms a dry and tack free film
- Captive part of the thread
- No post-curing even after repeated temperature exposure
- Easy disassembling after BLT or BAT
- Prevents corrosion in the threaded connection

## Technical data

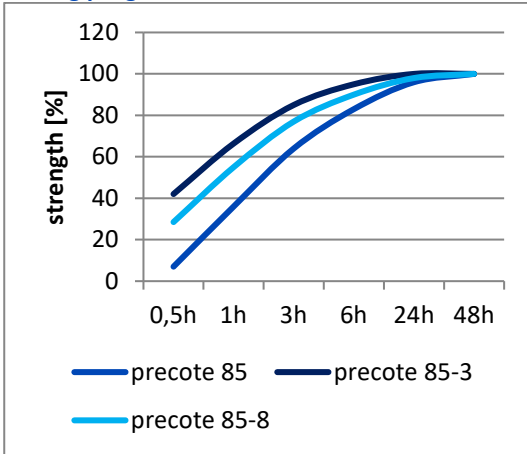
Chemical Type	Acrylate	
Color <sup>1</sup>	turquoise	
Thread friction $\mu_{\text{Thread}}^2$	0,10 - 0,15	
Curing time <sup>3</sup> at RT to final strength	ca. 24h	
Curing time <sup>3</sup> at RT to exceed the values according to DIN 267-27	precote 85:	6h
	precote 85-8:	6h
	precote 85-3:	0,5h
Prevailing-in torque PIT on assembly <sup>3</sup>	< 3 Nm	
Strength without preload BAT <sup>3</sup>	> 20 Nm	
Prevailing-out torque POT <sup>3</sup>	< 55 Nm	
Temperature range according to DIN 267-27	-60°C to +170°C -75°F to +340°F	
Temperature range according to GMW 14657	-60°C to +200°C -75°F to +390°F	
Chemical resistance tested according to all current automotive standards and DIN 267-27, storage time 1000h	<b>Test temperature</b>	
	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

<sup>1</sup> This product information is also valid for special colors. 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.

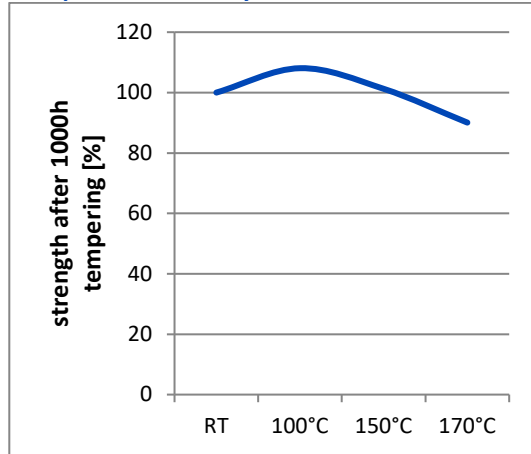
<sup>2</sup> Test according to DIN EN ISO 16047. All values apply to screws M10 ISO 4017-8.8 plain finish and nuts M10 ISO 4032-10 plain finish. All other surfaces could deliver different values.

<sup>3</sup> 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.

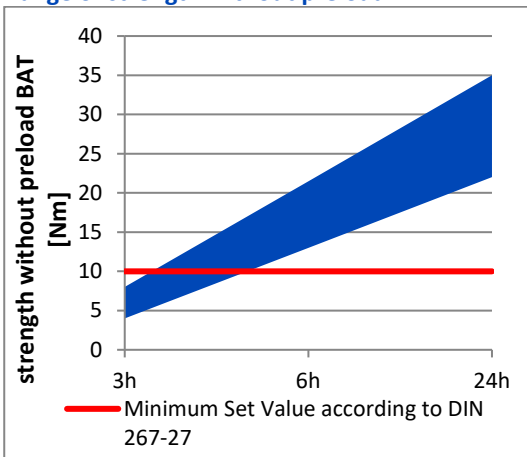
### Curing progress



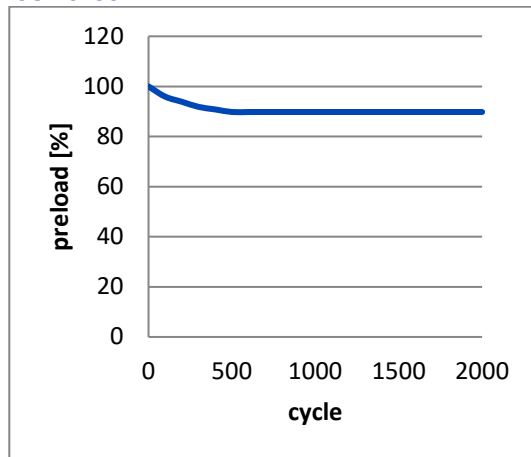
### Temperature stability after 1000h



### Range of strength without preload BAT<sup>1</sup>



### Vibration test according to Junkers DIN 65151 and ISO 16130



<sup>1</sup> Test according to DIN 267-27. 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.

## All versions of precote 85 meet and exceed technical specifications of following companies

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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

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Shelf-life of coated parts 4 years at max.30°C and max. 65% relative humidity.

Please note the omniTECHNIK packaging information.

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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.