

# precote 80

## Technical Data Sheet



### precote 80-3, precote 80-8 High-Strength and Heat-Resistant Thread Coating.

#### DESCRIPTION

precote 80, precote 80-3 and precote 80-8 are varnish-like, solvent-free coating systems based on microencapsulated acrylates for 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 80 are high strength thread locking coatings with a locking effect even at high temperatures. They can be used on all types of external threads.

precote 80: for threads > M6 and pitches > 1mm

precote 80-3: accelerated curing for threads > M6  
Yellow UV marker visible under UV light

precote 80-8: for threads ≤ M6 or  
pitches ≤ 1mm to max. M10x1  
White UV marker visible under UV light

The physical data and chemical resistance of precote 80-3 and precote 80-8 match with the data of the standard version precote 80 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.

#### STORAGE

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

Please note the omniTECHNIK packaging information.

#### PROPERTIES

- precote 80 and precote 80-8 exceed the required values of DIN 267-27 after 6 hours curing at RT. Fast curing precote 80-3 exceeds these values after 30 minutes
- 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
- Thread friction must be considered on assembly
- Prevents corrosion in the threaded connection

#### ALL VERSIONS OF PRECOTE 80 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, Jaguar Land Rover, JCB, Johnson Controls, KWC, Lear, Magna, Magneti Marelli, Mahle, MAN, Michelin, Opel, Panasonic (Matsushita Electric), Perkins, Porsche, PSA, Renault, Rover, Saab Scania, Schaeffler, Siemens, Stihl, Tesla, Toyota, TRW Automotive, Valeo, Volvo, VW, ZF Friedrichshafen and many more.

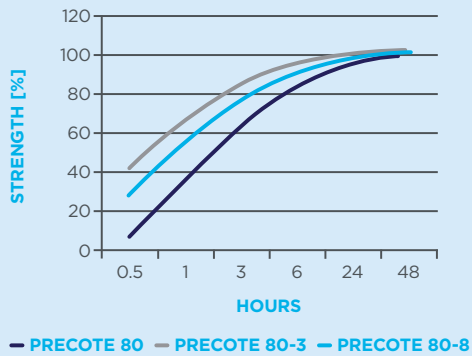
Information presented in this data sheet is considered reliable, but conditions and methods of use, which are beyond our control, may modify results. Before these product are used, the user should confirm their suitability. We cannot accept liability for any loss, injury or damage which may result from its use. We do not warranty the accuracy or completeness of any such information whether orally or in writing. We reserve the right at anytime and without notice to update or improve products and processes and our information concerning the same.

## TECHNICAL DATA

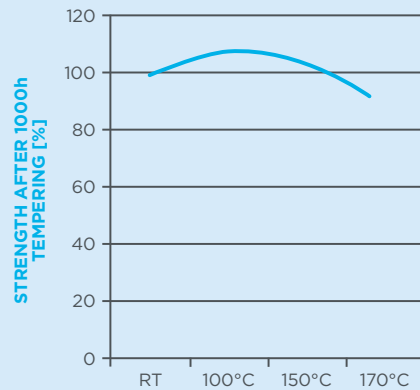
<b>Chemical Type</b>	Acrylate																		
<b>Colour<sup>1</sup></b>	Red/Pink																		
<b>Thread Friction <math>\mu</math>Thread<sup>2</sup></b>	>0.25																		
<b>Curing Time<sup>3</sup> at RT to final strength</b>	ca. 24h																		
<b>Curing Time<sup>3</sup> at RT to Exceed the Values According to DIN 267-27</b>	precote 80: 6h precote 80-8: 6h precote 80-3: 0.5h																		
<b>Prevailing-in Torque PIT on Assembly<sup>3</sup></b>	<3 Nm																		
<b>Strength Without Preload BAT<sup>3</sup></b>	>20 Nm																		
<b>Prevailing-out Torque POT<sup>3</sup></b>	<55 Nm																		
<b>Temperature Range According to DIN 267-27</b> <b>Temperature Range According to GMW 14657</b>	-60°C to +170°C -75°F to +340°F -60°C to +200°C -75°F to +390°F																		
<b>Chemical Resistance Tested According to all Current Automotive Standards and DIN 267-27, Storage Time 1000h</b>	<table border="0"> <thead> <tr> <th></th> <th><b>Test Temperature</b></th> </tr> </thead> <tbody> <tr> <td>Engine Oil</td> <td>150°C</td> </tr> <tr> <td>Super-Grade Gasoline</td> <td>23°C</td> </tr> <tr> <td>DOT4 Brake Fluid</td> <td>90°C</td> </tr> <tr> <td>Anti-Freeze 100%</td> <td>120°C</td> </tr> <tr> <td>Anti-Freeze/Water 50:50</td> <td>120°C</td> </tr> <tr> <td>Automatic Transmission Oil</td> <td>150°C</td> </tr> <tr> <td>Transmission Oil</td> <td>120°C</td> </tr> <tr> <td>Polyurea AdBlue®</td> <td>23°C</td> </tr> </tbody> </table>		<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
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<sup>1</sup> This product information is also valid for special colours. The specified colour is not a primary product feature. The colour 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.

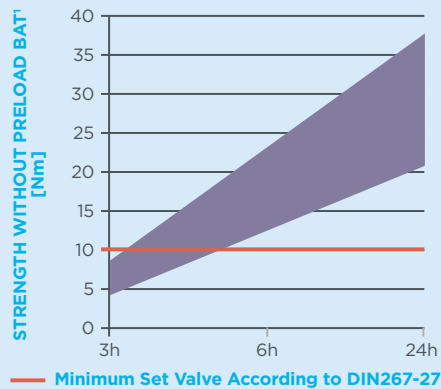
### CURING PROGRESS



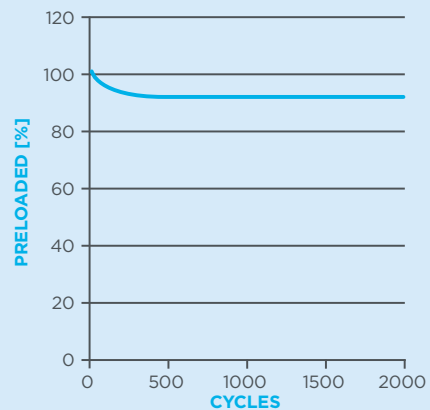
### TEMPERATURE STABILITY AFTER 1000h



### RANGE OF STRENGTH WITHOUT PRELOAD BAT<sup>1</sup>



### VIBRATION TEST ACCORDING TO JUNKERS DIN 65151 & ISO



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