

## precote 83

### High-Strength and Heat-Resistant Thread Precoating

#### Description

precote 83 is a varnish-like precoating system on base of microencapsulated acrylates for sealing and locking of threaded parts. The dried film is tack-free, solvent free and physiologically harmless. Its characteristics as a locking and sealing element become effective only when the capsules are ruptured by shear and/or pressure stress and the adhesive is allowed to cure. precote 83 is an accelerated curing version of the established precote 80.

#### Application

On high-tensile threaded combinations which predominantly require a locking effect even at high temperatures. The product can be applied on screws, studs and no standardized parts as well as on thread plugs and pipe threads. Due to the high strength only a more difficult disassembly of the polymerised connection is possible. Maximum strength is achieved within 2 hours at room temperature. No uncontrolled post curing occurs even after repeated temperature exposure.

#### Properties

- Forms a dry and tack-free film.
- Unlosable part of the thread.
- Physiologically harmless as coating and as assembly.
- Threaded parts can be preapplied long time before assembly (oT coating machine).
- Seals against pressure up to 400 bar (5760 psi).
- Retains torque performance even at +170°C.
- Prevents corrosion in the threaded connection.
- Very fast curing - no post curing even after repeated temperature exposure.
- Thread friction must be considered on assembly.
- Good chemical resistance (meets the relevant automotive specifications).
- Complies with DIN 267, part 27.

### Technical data - precote 83

colour	red
thread friction value $\mu_{\text{thread}}$	0.25 - 0.28
curing time	3 h
lowest curing temperature	-20°C
prevailing-in torque PIT on assembly*	1 – 1,8 Nm
strength without preload BAT oT standard 2.7.1* resp. DIN 267, part 27 (min. 12 Nm after 30')	min. 20 Nm
strength ratio $BLT/M_A$ oT standard 2.7.3* resp. DIN 267, part 27	> 1.2
prevailing-out torque POT	< DIN 267, part 27
temperature range	-50°C to +170°C
remaining strength after heat aging (2,000 h at +200°C)	100 %
shelf-life	4 years at room temperature 27/65 DIN 50 014

\* All values apply to screws M10 DIN 933-8.8 plain finish.

Values < M10 and > M10 comply with DIN 267, part 27.

\* oT standards available on request.

09/03

Guarantee: 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 knowledge and influence 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