

precote® 30/80/85 • 3M® 2353/2510 locking coat for external and internal threads ...



Field of application

A variety of standard products are offered to address different practical requirements.

precote® 30:

For thread sealing and mediumstrength thread locking. Easy dismantling, no subsequent hardening.

precote® 80:

Universal screw locking system, high-strength, temperature resistant to 170°C; Also suitable for sealing applications.

precote® 85:

Universal screw locking system, high-strength, with slow thread friction value, temperature resistant to 170°C; Also suitable for sealing applications

precote® Varianten:

-3 for faster curing

(e.g. precote® 80-3)

-8 for smaller thread dimensions

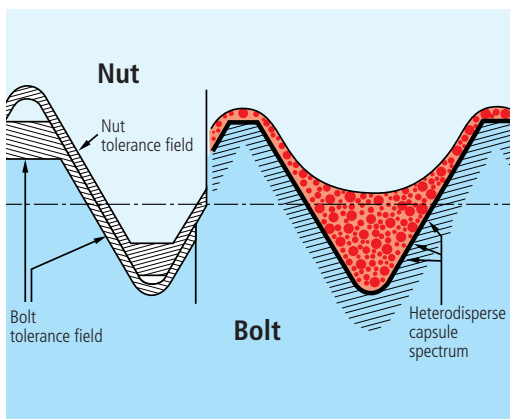
(e.g. precote® 80-8)

3M®:

Gluing and sealing function, insensitive to oil and grease, reliable, self-locking effect in response to vibration forces transversely to the screw axis.

Product features

- Extremely good thread locking action against dynamic stress and absolutely reliable seal.
- High temperature resistance from -50°C to +170°C (with precote® 80).
- The nut and locking element are inseparably joined, meaning that the locking element can never get lost or be forgotten.
- Replaces conventional and in some cases unreliable mechanical locking elements such as circlips, castellated nuts, plain washers, wire locking elements, locking plates etc.
- Good resistance to chemicals such as fuels, hydraulic oils, coolants etc., corrosion-inhibiting.
- Corrosion inhibiting.
- Economical due to large-series coating and use of customary installation tools.
- Saves costs for inventory management, storage and assembly of locking materials..





External and internal thread coating with plastic adhesive (microcapsules)
adhesive coating in line with DIN 267, part 27

precote® 30/80/85
3M® 2353/2510
Works Standard 924 to 929

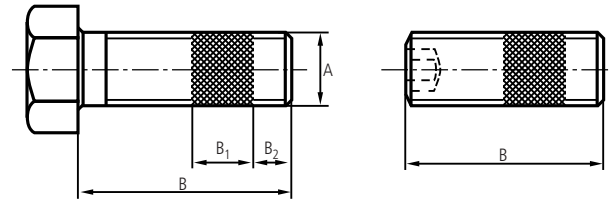
Application

For the manufacture of ready-toinstall self-locking screws and threaded components:

- External thread from M2
- Internal thread from M5

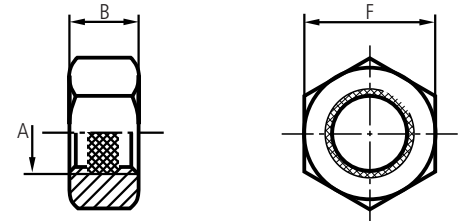
Standard coating external

$B1 \approx A$, 360° all round.
Around 2 to 3 thread turns remain uncoated to ease the screwing action (B2).



Standard coating internal

360° all round.
Begin of coating, each approx. 1st respectively last thread turn.



	precote® 30	precote® 80	precote® 85	3M® 2353	3M® 2510
Article no.					
- Nuts, internal thread	924 ... 300	924 ... 800	924 ... 900	925 ... 000	925 ... 900
- Headed screws	926 ... 300	926 ... 800	926 ... 900	928 ... 000	928 ... 900
- Studs	927 ... 300	927 ... 800	927 ... 900	929 ... 000	929 ... 900
Coating colour	yellow	red	turquoise	blue	orange
Breakaway torque:					
Installed under pretension	mid-range	$\geq 0,9 M_A$	$\geq 0,9 M_A$	$\geq 0,9 M_A$	$\geq 0,9 M_A$
Not installed under pretension		min. 10 Nm	min. 10 Nm	min. 10 Nm	min. 10 Nm
Temperature range	-50°C to +150°C	-50°C to +170°C	-50°C to +170°C	-30°C to +110°C	-30°C to +150°C
Coefficient of thread friction μ (Guideline values)	0,10 to 0,15	> 0,25	0,10 to 0,15	0,18 to 0,22	0,20 to 0,25
Hardening time (room temperature)	24h	24h	24h	24h	72h

M_A = tightening torque

All values refer to M10 black tempered screws (thread pairing medium tolerance range), coating length $\approx A$, 360° all round.

Surface properties

The coating can be applied to all metal thread materials. **The thread should be free of oil and grease.** When using bright, phosphatized parts, suitable corrosion protection agents are admissible. In the case of coefficient of friction-reduced surfaces, a reduction of the M_{LB} can occur.

Hardening properties

Curing begins shortly after screwing in the thread. Adjustment and tightening processes should therefore have been completed within 5 minutes. Sufficient functional strength is generally achieved after around 30 minutes; curing is faster with precote® -3. For smaller thread dimensions, use precote® -8. Precote® also cures at temperatures as low as -20°C, but with a lower curing speed

Storage life

of coated screws: 3 years at room temperature. precote® 30 and precote® 80 still offer particularly good storage properties under humid conditions.

Reusability

Screws with coating 3M® 2353 and 3M® 2510 can be used several times provided the framework conditions (thread free of oil and grease) are adhered to. However, as undefinable conditions can occur, we do not advise the reuse of threaded parts which have broken loose.

Further technical details should be clarified depending on the case in question.

Animation

