B8X-263 High-Strength Permanent Threadlocker

B8X-263 is the solution for mission-critical, permanent fastener retention where failure is not an option. Its low viscosity enables deep capillary penetration into tight or blind-threaded joints, while its robust cured polymer resists thermal cycling, shock, and chemical exposure. Unlike standard adhesives that struggle with inert surfaces, B8X-263 cures reliably on **stainless steel, anodized aluminum, zinc-nickel plating, and trivalent chromium coatings**—without primers. Ideal for engine blocks, pump housings, and heavy machinery where long-term integrity under heat and vibration is essential.

Key Technical Specifications

Parameter	Value
Viscosity	500 cP
Color	Red
Thixotropic	No
Max Recommended Fastener Size	M25
Fixture Time	~10 minutes
Breakaway Torque (M10 steel)	33 N・m (290 lb・in)
Prevailing Torque (M10 steel)	33 N・m (290 lb・in)

Service Temperature	–55°C to +180°C (–65°F to 360°F)
Disassembly Method	Localized heating to ⩾250°C (482°F)
Packaging	20 ml / 250 ml

Note: Equal breakaway and prevailing torque indicates full thread engagement and complete curing—typical of high-strength permanent formulations.

Performance Highlights

- **True Permanent Bond**: Designed for applications where disassembly is rare or only during major overhaul.
- **Universal Metal Adhesion**: Cures reliably on **stainless steel (300/400 series), aluminum alloys, cadmium/zinc plating, and modern Cr(VI)-free coatings**.
- **High-Temperature Resilience**: Stable continuous service at **180°C (360°F)**—ideal for engine compartments, turbo housings, and industrial pumps.
- **Low Viscosity for Deep Penetration**: Flows easily into pre-assembled or hard-to-reach threads via wicking action.
- **Seals Against Fluids & Gases**: Prevents leakage in hydraulic, fuel, and coolant systems by filling micro-clearances.

Typical Applications

- **Engine & Powertrain**: Cylinder head studs, main bearing caps, flywheel bolts

- **Pumps & Compressors**: Housing bolts, shaft retainers, impeller locknuts
- **Heavy Machinery**: Structural frame bolts, gear carrier fasteners, hydraulic manifolds
- **Electric Motors**: Stator housing studs, rotor retention bolts
- **Aerospace & Defense**: Critical fasteners in high-vibration, high-heat zones

Application Guidelines

- Clean threads thoroughly; light oil residue is acceptable but heavy grease should be removed.
- For pre-assembled fasteners, apply B8X-263 at the joint interface and allow capillary action to draw adhesive inward.
- Full cure in 24 hours at room temperature; accelerated cure possible with mild heat (e.g., 60°C for 1 hour).
- To disassemble: heat the fastener locally to **?250°C (482°F)** using a hot air gun or induction tool, then loosen immediately while hot.
- Store upright at room temperature (<25°C); keep container tightly sealed.

Why Choose B8X-263?

When your application demands **maximum strength, thermal stability, and compatibility with inert metals**, B8X-263 delivers uncompromising performance. It’ s the permanent threadlocking solution trusted in the most demanding industrial, automotive, and energy applications worldwide.

Available in 20 ml (R&D/trial) and 250 ml (production) bottles.

Contact us for high-temperature aging data, substrate-specific validation reports, or wicking application support.