

JNI ARMOR

TECHNICAL BULLETIN

Black Coating of Exposed Stainless-Steel Threaded Rod

e	October 7, 2026	Applies to	Exposed threaded rod in JNI Armor ballistic fastener assemblies
Coating	Black aerosol paint for metal	Purpose	Reduce visible stainless-steel appearance after removal of nut caps

APPLICATION FUNCTION

Where stainless-steel threaded rod remains visible after assembly, the exposed surface may be coated black to reduce glare and visual contrast. The coating is cosmetic and protective only; it does not change the ballistic or structural rating of the fastening system.



Example locally sourced coating

1. Purpose

This bulletin provides recommended preparation and application practices for black coating of stainless-steel threaded rod that remains exposed in JNI Armor ballistic fastener assemblies. Nut caps previously concealed the stainless-steel rod; when caps are not used, black coating may be applied to the visible rod surface for a uniform finished appearance.

2. Recommended Coating

Example product	Rust-Oleum Universal Metallic Paint & Primer in One - Black Stainless Steel
Acceptable alternative	Similar black aerosol coating intended for metal/stainless-steel surfaces, subject to verification of adhesion and compatibility.
Supply	Locally sourced by installer/end user.
JNI supply status	JNI Armor does not supply aerosol paint because aerosol products create additional transportation constraints from California.

PRODUCT SELECTION NOTE

The pictured Rust-Oleum product is an example coating that has been observed to provide a suitable black finish on the exposed threaded rod. It is not supplied by JNI Armor. Equivalent coatings may be used when the installer confirms suitability for the substrate and service environment. Follow the coating manufacturer's current label and safety instructions.

3. Surface Preparation

- Complete assembly and identify only the threaded-rod surface that will remain visible.
- Mask or otherwise protect functional thread-engagement areas, threaded inserts, nuts, washers, composite surfaces, and adjacent coated components from overspray.
- Remove oil, grease, dirt, fingerprints, and other contamination from the surface to be painted using a cleaner compatible with the assembly materials.
- Allow the surface to dry completely before coating. Do not introduce cleaner or paint into thread-locking interfaces.

4. Application Procedure

Step	Action	Requirement
1	Protect the assembly	Mask all surfaces not intended to receive paint. Pay particular attention to mating surfaces, inserts, or adjacent shield components.
2	Prepare the coating	Shake and prepare the aerosol in accordance with the paint manufacturer's instructions.
3	Apply light coats	Apply controlled, light coats to the exposed stainless-steel rod surface. Avoid pooling, or bridging between moving/functional interfaces.
4	Allow to dry/cure	Observe the coating manufacturer's stated flash, recoat, and cure times before packaging or placing the assembly into service.
5	Inspect	Confirm uniform black coverage and verify that no paint has entered mating surfaces, inserts, or adjacent shield components.

5. Critical Limitations

DO NOT USE PAINT AS A THREAD-LOCKING OR STRUCTURAL MATERIAL

Paint is applied only to the externally visible rod surface. It must not replace Loctite 243 or the specified fastening procedure, and it must not be used to increase retention, torque, or ballistic performance. Keep paint out of thread-engagement and mating interfaces.

- Do not exceed the ballistic bolt maximum installation torque of 10 N·m (88.5 in-lb).
- Do not alter bolt, washer, insert, nut, rod, or shield geometry to improve paint coverage.
- Touch-up coating is acceptable only on exposed cosmetic surfaces when it does not interfere with assembly function.

6. Pre-Service Verification

- ☐ Exposed stainless-steel rod has uniform black coverage.
- ☐ No overspray is present on functional threads, inserts, mating surfaces, or shield composite.
- ☐ Bolt/fastener torque remains within the applicable JNI Armor installation requirement.
- ☐ Loctite/thread-locking requirements remain satisfied and uncontaminated.
- ☐ Coating is dry/cured in accordance with the coating manufacturer's instructions.
- ☐ Complete fastening system remains correctly assembled and undamaged.

SYSTEM REQUIREMENT

This coating instruction changes appearance only. All JNI Armor ballistic bolt, washer, threaded insert, rear-hardware, and system-level installation and validation requirements remain applicable. Refer to the current JNI Armor Ballistic Bolt Installation Guidelines and Ballistic Washer Performance and Application Guidelines.