



# COBLAST BOLTS & FASTENERS

ENBIO's patented, novel, direct-to-metal fluoropolymer coatings for threads

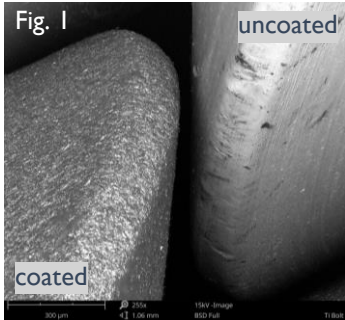


Fig. 1: SEM images of bolt thread section coated with PTRF (left) & uncoated (right).



Fig. 2: Titanium bolts coated with PTFE (left) & uncoated (right).

## BENEFITS

- Stable & robust fluoropolymer-based coating for anti-galling & anti-fretting applications
- Multiple uses without removing the coating
- No peeling or delamination of the coating
- Conforms to thread without altering the geometry
- <10 µm coating thickness with no pooling
- Robust to changes in temperature, stress and moderate handling damage
- Same process coats bolts made from most metals (titanium, steel, aluminium, etc.)
- Can be deposited selectively

## OUR OFFERING

ENBIO initially developed coatings for the threads of medical sector screws and drills.

ENBIO have developed their fluoropolymer coatings for various applications and are now offering a CoBlast fluoropolymer coating solution for industrial bolts, fasteners and general threaded features.



Coating applied at ambient conditions

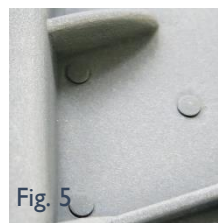
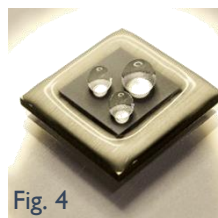
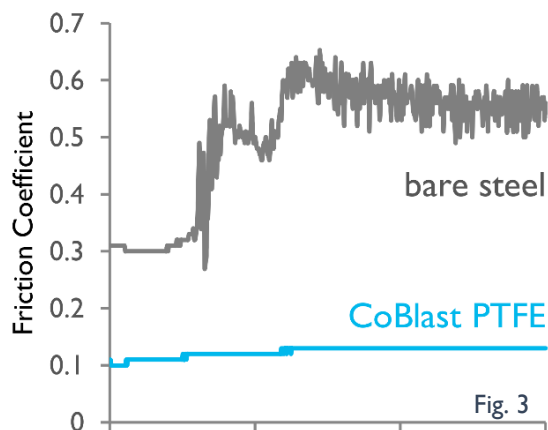


Uses stable, non-toxic materials (No VOCs)



A thin coating (<10 µm) that maintains the thread profile

## OTHER COBLAST FLUOROPOLYMER APPLICATIONS



- Low friction coefficient (0.05-0.15), Fig. 3
- Ultra-Hydrophobicity (>140°), Fig. 4
- Icephobicity
- High emissivity for cooling of electronic components
- Shell bearings of engine and transmission applications
- Permanent tyre and footwear mould release solutions, Fig. 5
- Moulding of other polymeric materials such as silicone, elastomers, foams...