

M3™ * Custom Protective Coating



In general, regular expandable rock bolts are not resistant to corrosive environments. To alleviate this problem in mining and tunneling applications, JENNMAR is using a special coating that isolates and actively protects the steel. The coating does not interfere with normal installation procedures.

PYFLEX™ Superior Corrosion Coating

M3 bolts utilize our innovative PYFLEX coating that is thick (6+ mils), impervious to liquid and air, self-healing, durable (excellent abrasion and scratch resistance), and UV resistant. The PYFLEX coating has exceptional flexibility and adhesion to prevent microcracks or fractures of the coating after bolt inflation and possesses excellent corrosion resistance to acids (pH <1), alkalis (pH >11), fuels, and salt solvents. The damage resistant coating offers a very effective protection of the bolt for extra longevity in corrosive environments. For even greater corrosion resistance, **PYFLEX U2™** * features an additional layer applied to the bolt giving the M3 maximum protection!

PlastiMax™

As a cost-effective corrosion resistant coating solution to the mining industry, PlastiMax™ exhibits excellent flexibility and adhesion to prevent micro-cracks or fractures of the coating after bolt installation. The coating has exceptional corrosion resistance at acids (pH < 2), alkalis (pH > 11), fuels and salt solvents and good surface hardness against scratch damage during bolt installation.

K2 ThermoPlastic

Excellent flexibility, adhesion and hardness are the hallmark characteristics of this familiar, single layer plastic bolt coating. Very good resistance to humidity, acids, alkalinity and salts, it remains a top coating choice for many mining sites.

Zinc Epoxy Coating

Zinc Epoxy is an economic yet effective coating material for rock bolts against corrosion in challenging geotechnical environment, where resistance to abrasion and electrochemical corrosion is required. The innovative zinc epoxy coating system applied on Jenmarm rock bolts.

Features

- An optimal zinc content: The zinc epoxy is specially formulated with an optimal zinc content that provides an excellent cathodic protection (CP) of metal substrate with greatly improved mechanical properties (crack resistance), cohesion, and adhesion.
- A self-healing effect: The corrosion byproduct of the zinc blocks microcracks on the coating and creates an inhibitor effects by collecting insoluble complexes of zinc, oxygen, and chlorides and trapping these species in the coating so they don't reach the surface of the steel substrate.
- A good scratch damage resistance: The Zinc epoxy coating has a good surface hardness against scratch damage during bolt installation.
- An excellent corrosion resistance: The zinc epoxy coating has an exceptional corrosion resistance to acids (pH 4 - 7), alkalis (pH up to 13), fuels and salt solvents. Laboratory test indicates that the zinc epoxy coated M3 expandable rock bolts withstood more than 1,000 hours of salt spray exposure without red or white corrosion products that are normally found after 72 hours on uncoated rock bolts.

* The M3, PYFLEX and PYFLEX U2 are all the subject of pending U.S. patent applications issued to FCI Holdings Delaware, Inc.

