

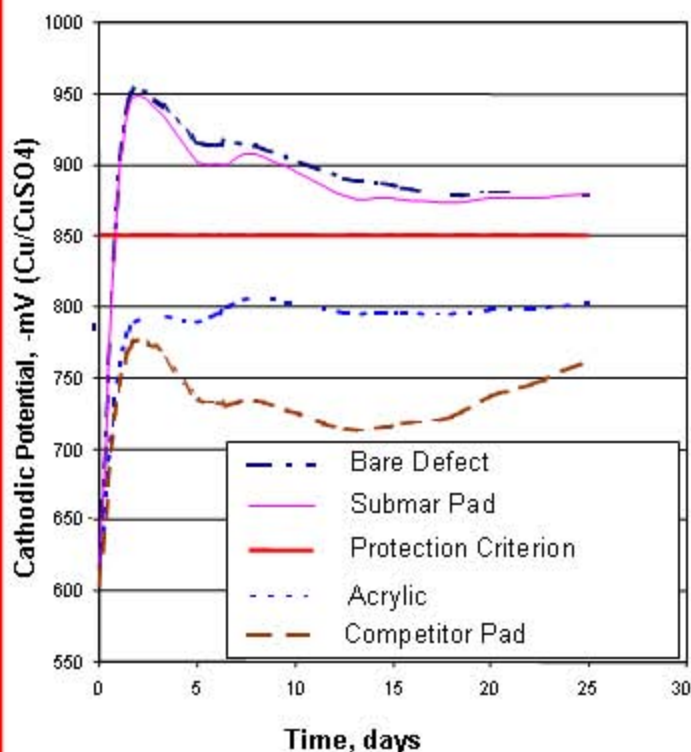
SUBMAR'S

Patented "Non-Shielding, Non-Abrasive" Pads



Submar's Patented "Non-Shielding, Non-Abrasive" Pads were designed not to interfere with your cathodic protection system and to prevent damage to fusion bonded epoxy and other coated pipelines. Open areas will remain even when the pad is fully compressed. The pads are 7½" x 7½" square and are made of heavy duty 3/8" PVC.

Effects of CP Shielding in Sea Water



Cathodic Protection Study

SUBMAR Permeable, Non-abrasive Pads
vs.

Competitor Impermeable, Non-abrasive Pads

- Results show that Submar's "Non-Shielding, Non-Abrasive" Pads offer corrosion related performance advantages over competitor's design.
- Impermeable pads can allow oxygen but restrict Cathodic Protection (CP).
- -850mV protection criterion not met with competitor pad.
- SRBs grow under impermeable pads when oxygen is deficient and CP is shielded.
- Permeable Submar Pads meet NACE, DOT and MMS protection criterion. Submar Pads allowed protection to the same level as a bare defect.
- Submar Pads prevented the growth of SRBs and allowed CP to reach the steel.