

# Howard *Sub-Armor*<sup>™</sup> Special High-Performance Coating System For Submersible Distribution Transformers

Howard *Sub-Armor*<sup>™</sup> is an extremely tough high-performance coating system available as an option for all Howard Industries submersible transformers. *Sub-Armor*<sup>™</sup> provides substantially improved performance compared to industry-standard submersible coatings. Several electric utility companies now specify *Sub-Armor*<sup>™</sup> and are extremely pleased with its performance.

The *Sub-Armor*<sup>™</sup> system was the result a collaborative effort by Howard Industries, a major electric utility company, and a leading global producer of marine coatings. *Sub-Armor*<sup>™</sup> is formulated to provide the following important benefits.

- Suitable for use on mild or stainless steels
- High solids content,
- High-build film thickness (18 mils)
- Good adhesion properties
- Extreme protection against moisture, standing water, and chemicals
- Excellent durability and resistance to mechanical damage
- Reduced environmental impact compared to traditional coal-tar epoxies
- Can be top-coated for UV protection
- Meets or exceeds the performance requirements of IEEE C57.12.32

## Sub-Armor<sup>™</sup> Coating Specifications

Mechanical cleaning.....	Power abrasion of weld areas Bead blast (“near-white blast”) with 2 mil profile
Chemical cleaning.....	7-stage alkaline wash Phosphate and non-chrome rinse
Coating type.....	2-component epoxy mastic
Color.....	Black (optional: gray or red)
Gloss.....	Semi-gloss
Application.....	Hand spray
Curing method.....	Convection oven or air cure
Dry-film thickness.....	18 mils, nominal

## Sub-Armor<sup>™</sup> Performance per C57.12.32 (409SS substrate)

SCAB.....	30 cycles
Salt spray.....	3,000 hours

Contact the Howard Industries factory or your regional sales representative to inquire about *Sub-Armor*<sup>™</sup> and to request technical data sheets and test reports.

