



AT ISSUE: ▼

Keeping a transformer painted in the field is important, not only because it extends the operational life of the unit but also because the public expects utilities and industrial facilities to maintain the appearance of equipment installed near their property. With the cost of repainting a transformer in the field amounting to hundreds of dollars, and many transformers requiring repainting every 7 to 10 years, the durability of the factory finish can have a significant impact on maintenance budgets.



RECOMMENDATION: ▼

Tanks, covers, cabinets and terminal compartments of Cooper Power Systems' transformers are finished with the finest coating system in the transformer industry.

Standard paint colors include:

- Munsell Green 7GY3.29/1.5
- ANSI 61 Dark Gray
- ANSI 49 Light Gray
- ANSI 70 Sky Gray
- ANSI 24 Blue Gray

Special colors may be ordered.



RATIONALE: ▼

LOWER FIRST COST

Undercoating in any form is not necessary.



LOWER MAINTENANCE COST

Cooper's durable factory finish eliminates the need for periodic field repainting. Three-phase tank interiors are painted light gray, providing improved visibility for field inspection and servicing.



RELIABILITY

Testing has verified the coating to exceed the performance requirements of ANSI C57.12.28 for general padmounted installations and C57.12.29 for coastal environments. As a result, Cooper Power Systems transformers retain a like-new protective finish even in corrosive seacoast locations, years after other transformers have blistered, cracked, chalked or rusted.



MULTI-STAGE COATING PROCESS

An advanced multi-stage process combines advanced coating formulas and proprietary application systems to deliver a superior transformer finish. Total system automation assures that each step is executed with a level of accuracy and consistent adherence to quality standards not possible in more manual operations typical of the transformer industry. (See coating system flow diagram on reverse side).



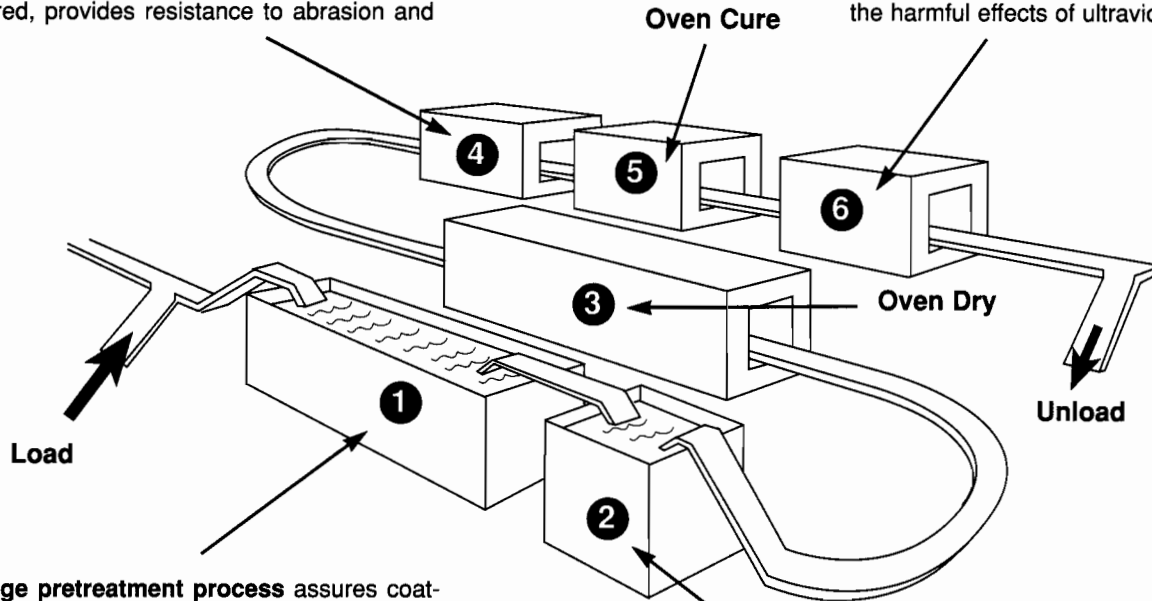
THE BOTTOM LINE: ▼

Cooper Power Systems' commitment to the transformer market is evident in its multi-million dollar funding of the industry's most sophisticated transformer coating systems and associated quality assurance programs. The result is the most durable, maintenance-free line of transformers produced.



A **hybrid polyester powder coat (P-coat)**, electrostatically applied in a climate-controlled clean room and then oven cured, provides resistance to abrasion and impact.

Finally, a **urethane topcoat** is applied to seal and protect the transformer finish from the harmful effects of ultraviolet rays.



The **multi-stage pretreatment process** assures coating adhesion and retards corrosion by converting tank surfaces to a nonmetallic, water insoluble iron phosphate coating.

An **epoxy primer (E-coat)**, applied to three-phase transformers through electrodeposition similar to a plating process, and then oven-hardened, provides a barrier against moisture, salt and corrosives. The E-coat primer is impervious to the elements and provides the adhesion base for two more protective coats.

1. High-pressure alkaline spray or total immersion removes heavy dirt and oils from the raw metal.
2. Hot water rinse.
3. Second hot water rinse.
4. Hot iron phosphate chemical wash.
5. Hot water rinse.
6. Non-chromic acid sealer chemically converts the tank surface to a non-metallic, water-insoluble iron phosphate coating that assures a clean, corrosion-resistant metal substrate receptive to the final coatings.
7. De-ionized water rinse.

1. E-coat application.
2. Two-stage rinse.
3. De-ionized water rinse.

MULTI-STAGE COATING PROCESS