

NANOMYTE® TC-5001

Nanocomposite Barrier Coating for Superior Corrosion Protection



NANOMYTE® TC-5001 is a one component protective coating to prevent metals, such as galvanized steel, from corroding. Galvanization alone does not provide prolonged corrosion protection, as the steel still suffers from white and red rust. TC-5001 is applied on top of the galvanized steel to act as a dense, hard and durable coating to eliminate contact between metal and moisture. The coating also reduces the chipping of paint, as observed on galvanized steel, and adheres strongly to bare, pretreated or painted metal surfaces. The formulation can be tailored to meet customers' specifications and can be microns to mils thick. TC-5001 can be applied to metal by dipping, spraying or brushing.

SURFACES

Iron, steel, stainless steel, zinc-plated & galvanized steel, aluminum, copper, bronze, powder coated metals, and painted & primed metals

SOLUTION

Addresses problems related to corrosion (rust), oxidation, acid rain, moisture & ice formation, mold build up, chemical stains, UV damage, marine biofouling, and animal waste contamination.

CHARACTERISTICS

Color: Available in clear or 20 different translucent color stains

Finish: Gloss, satin, or matte

Vehicle Type: Solvent based

VOCs: Less than 100 g/L

Density: 7.36 lbs/gallon

SPREAD RATE

Recommended thickness per coat -

Wet mils: 1.5 – 2.0

Dry mils: 0.5 – 1.2

COVERAGE

~ 800 – 1,200 sq. ft / gallon

Varies depending on the porosity and texture of the substrate.

SURFACE PREPARATION

Metal surface must be clean, dry, and in sound condition. Remove all oil, grease, dust, dirt, and other foreign material before application.

TESTING

ASTM D-3359-09 Tape Adhesion: 4B

ASTM D-3363 Taber Abrasion: 39.11 avg

ASTM D-2803-03 Proc. B (ISO 4623)

Filliform Corrosion: None after 1,000 hr

ISO 4628-10 Coating Degradation: None coated over primer

OVERVIEW

- Hard, dense nanocomposite barrier coating
- Bonds to bare, pretreated or painted metal surfaces
- Customized formulations possible

APPLICATIONS

Military, aerospace, marine, automotive, infrastructure (pipelines, buildings, towers, bridges), electronics

CAPABILITIES

- Corrosion & chemical resistant
- Abrasion resistant
- Water repellant
- UV stable

BENEFITS

High Performance

Corrosion protection, stain resistance, hard to scratch or chip, water repellant, will not break down in sunlight, anti-fouling

Easy Application

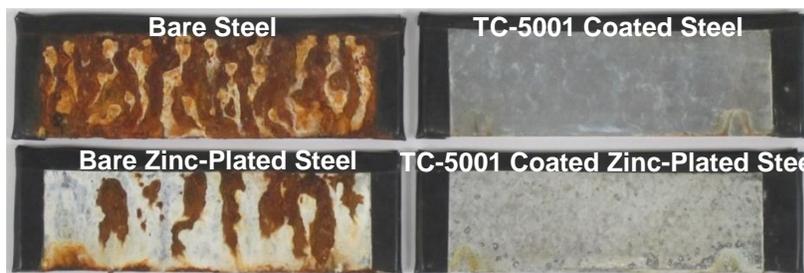
Dip, spray or brush on; most substrates require only one coat

Cost Effective

Cost per square foot savings over traditional coatings, labor cost savings, protects the initial substrate investment

Environmentally Smart

Low VOCs, no heavy metals, no peeling or flaking into water or soil



TC-5001 coated panels on right show no signs of white or red rust after 1,000 hours in salt-spray test (ASTM B117). Coating is ~10 microns thick.