

TP-2500 THERMAL INSULATIVE COATING

DESCRIPTION

TP-2500 is a composite ceramic insulating coating that provides an insulating barrier, protects personnel and blocks corrosion all in one application. The coating is specifically designed as an alternative to traditional insulation and is a multiple purpose coating, solving painting and insulating issues.

FEATURES

- Prevents Corrosion Under Insulation (CUI)
- Provides personnel protection and worker safety
- · Provides anti-condensatio protection
- Coating allows for easy visual inspection vs traditional insulation
- Designed to be spray applied to hot substrates up to 350°F (177°C)
- · Very fast dry with minimal overspray risk
- · Low VOC's and odor
- · Contact Justrite for more information.

PRODUCT CHARACTERISTICS

Base Water-based Acrylic Insulation Coating

Gloss

Priming Self priming over non-ferrous materials

> (stainless steel & aluminum). Primer required for carbon steel substrates.

Topcoats WB Urethane or Acrylic Compatible

Volume Solids 78-80%

Thickness per 20-22 mils WFT at 70°-130°F Coat

(0.5 mm WFT at 21°-54°C)

50-55 ft²/gallon @ 20 mils **Dry Coat**

(1.3 m²/liter @ 0.5 mm) Coverage

VOC Content 0.06 lbs/gallon

(7.6 grams/liter)

Applications should not exceed 350°F Limitations

(176°C).

Do not subject wet coating in pail form to Storage

freezing conditions. Coating should be kept in a warehouse between 60°F and

90°F.

RECOMMENDED USES

Personnel Protective Coating (PPC) for improved plant safety through burn prevention

Thermal insulation for hot or cold process energy conservation Prevent condensation on cold surfaces

Minimize radiant solar heat of containers and personnel enclosures

Tanks

Pipina

Vessels

Furnaces

Containers

Stacks

Personnel Enclosure

• Oil & Gas Facilities

Power Plants

• Pulp & Paper

• Off shore / Marine

Chemical Plants

Not recommended for:

Immersion service

• Surfaces operating above 350°F (177°C)

APPLICATION EQUIPMENT

Airless Spraver:

Pump Ratio – 33:1 or larger

Volume – 1.5 gpm (5.7 lpm) or greater

Hose -3/8" or larger with no more than 3' of $\frac{1}{4}$ " whip. $\frac{1}{2}$ " hose recommended for length above 50'.

Tip size -0.017" (for tight spots). 0.019" -0.023" (normal use)

Pressure - Minimum of 3000 PSI

Small Spray Application: Please consult Manufacturer for the Small Application Sprayer. Only approved sprayer should be used.

Brush: Brushing very small areas to touchup can be done. Consult manufacturer for these instructions.

Rolling: Rolling is not recommended for this coating

TEST INFORMATION

Item	English Value (Metric Value)	Test Method
Cyclic Salt Fog	Excellent 2000 hrs	ASTM B-117
UV-A Exposure	Excellent 2000 hrs	ASTM D-5894
Humidity Cabinet	Excellent 2000 hrs	ASTM D-4585
QUV	Excellent 2000 hrs	ASTM G-154
Permeability	Low — 4.98 perms (3.28 grams/24 hrs/m²/mm/hg)	ASTM 1653-03
Transmission	Low — 4.14 grains/hr/ft ²	ASTM 1653-03
Cross Hatch Adhesion	5A	ASTM D-3359
Pull Apart Strength	260–360 psi	ASTM D-4541
Elongation Rate	Above 30%	ASTM D-638
Thermal Conductivity	0.4381 Btu-in/ft ² -hr-°F (0.0698 W/m/K)	Thermal Probe Study
Thermal Emittance	0.85	ASTM C-1371
Solar Reflectivity	0.82-0.86	ASTM C-1549
Transmittance	0.00	Calculated
Absorptance	0.14-0.18	Calculated
Flame Spread	Class A	ASTM E-84/87
Smoke Developed	Class A	ASTM E-84/87
Cone Calorimiter	>6	ASTM E-1384-97

SURFACE PREPERATION

Surface Prep:

Surface should be prepared to NACE 1-3 (SSPC SP 5-6) when applicable. Surface should be clean from dust and debris.

Ferrous Surfaces:

Prime surface prior to coating application to prevent flash rusting. High team silicone based or zinc primers are applicable.

Non-ferrous Surfaces:

No primer necessary. See above regarding dust and dirt

PACKAGING AND STORAGEE

Container Wet: 27.5—28.0 lbs/5 gallon pail

(12.47-12.7 kg/18.92 liters)

Net Contents: 25.9 lbs/5 gallon pail

(11.7 kg/18.92 liters)

Flash Point: None

Storage: Do not subject wet coating in pail form to freezing conditions. Coating should be kept in a

warehouse between 60°F and 90°F.

Shelf Life: 18 months shelf life from manufacture date.

Caution: Do not let product freeze.

APPLICATION CONDITIONS

Surface Temperatures:

Optimal temperatures are above 60°F (15°C). Surface temperatures lower than that will increase dry times.

Applications:

- Ambient & Cold (60°—139°F, 15°—59°C): It is recommended to apply an initial 10 mils (0.25 mm or 250 microns) tack coat to eliminate sag. Tack coat should be dry to touch prior to next coat. Do not exceed 20—22 mils (0.5—0.55mm) wet per coat. Product can be reapplied after each coat is thoroughly dry.
- Hot (>140°F or >60°C): Please consult Manufacturer.

Application Thickness:

Multiple coats can be applied to increase insulating ability with no upper limitations.

Dryfall: Dryfall occurs in a 3 ft radius

APPLICATION NOTES

Mixing:

Only use a mud mixing paddle with a 1/2" drill motor to stir contents. To ensure the paddle doesn't scrape the sides of the bucket, make sure drill is in the Reverse setting.

Manufacturer can supply paddle. Do not shake this product.

Thinning:

Do not thin this product unless the manufacturer has provided written consent

Pot life:

Coating is one part and can be reused if properly sealed.

Container: 5 gallon pail (18.92 liters)

CLEANUP AND SAFETY

Cleanup:

Only soap and water is needed to clean equipment.

Safety:

Eye protection recommended. Half-face respirator recommended, including ammonia cartridge or better.

Ventilation:

Recommended for constricted areas.

Caution:

This material is not for human consumption.

Clothing:

Safety clothing & standard PPE are recommended.



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