

ST-100 Series Coatings

ST-101 Overview

A Ceramic Insulation that is a Thin Thermal and Condensation Barrier used as :

- Heat and Cold Temp Control
- Personnel Protection
- Anti-Sweat Control
- Acoustics Control •

And Can be applied to:

- Steam Pipes, Process Systems,
- Storage Tanks, Heat Exchangers
- Roof Top, ISO containers
- HVAC ducts, and much more

Thermal Effects

- keqv value of 0.23 (BTU·in)/(hr·ft²·°F) according to independent tests
- k value range of 0.49 to 0.63 (BTU·in)/(hr·ft²·°F) per ASTM C-177

Fire Safety LOW FLAME SPREAD of 5 (ASTM E-84) (0 is concrete and 100 is red oak flooring) Lloyd's Register Type Approved

TEST	Results
Adhesion (ASTM D3359)	5A & 5B
Tensile (ASTM D638)	
- Strength, psi	66.7
- Elongation, %	65
Mandrel Bend (ASTM D522)	3/8" Pass
Salt Fog (ASTM B117, 2000 hrs, 5%NSS)	
- Scribe	10
- Field	10
Accelerated Aging, /E (ASTM G53, UV-A)	
- 2 000 hours	1.08 (Excellent)
Total solids, wt% (ASTM D2369)	82.72%
VOC EPA Metoda 24 (ASTM D2369)	0.071 lbs/gal
ASTM E84 (Flame Spread)	Class A
ASTM E162	Class A
IMO FTP Code Part 5&6 (Flame Spread)	Pass (Interior Use on Passenger Vessels)
IMO FTP Code Part 2 (Smoke and Toxicity)	Pass (Interior Use on Passenger Vessels)







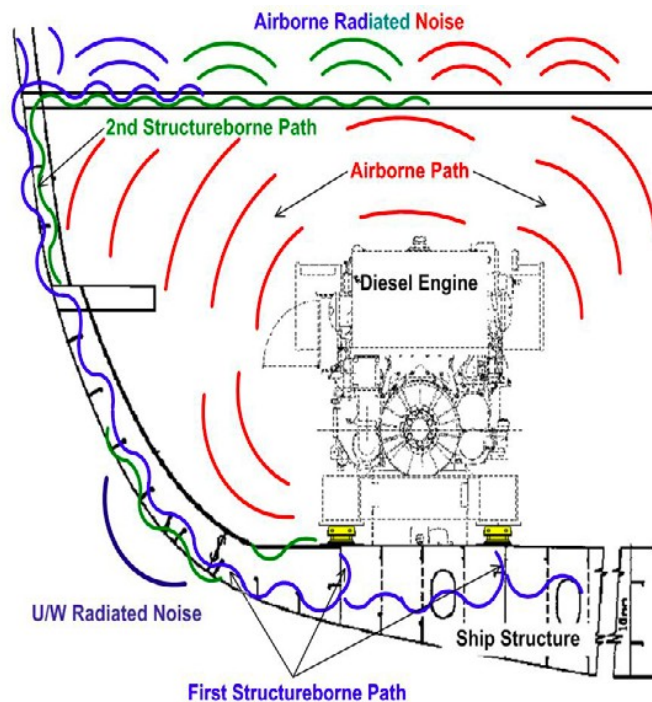


ST 100 - OVERVIEW

A Visco-Elastic Coating used to eliminate vibration : Personnel Protection Acoustics Control

Can be applied to: Operator Shelters, Generator Housings Rotating equipment Housings HVAC ducts, and much more

Fire Safety - Lloyd's Register Type Approved



Advantages

A. Personnel Protection

Piping, flanges, valves, eyewash piping, tanks etc..

- The base guidelines widely used by industry is generally is for the surface temperature to be less than 140°F(60°C)
- ASTM C1055 (Standard Guide for Heated System Surface Conditions that Produce Contact Burn Injuries) defines the maximum acceptable temperature for a particular surface derived from estimate of the possible or probable contact time.
- Per ASTM 1055, probable contact time established for industry is 5 seconds.
- Per ASTM 1057, a thermesthesiometer may be used for Burn Hazard Measurement and to replicate the thermal physical response for the human finger.

B. Energy Retention

- Energy Savings
- Improve Process Heating and Cooling
- Reduce Thermal Shock from Environment
- Reduce Thermal Expansion

C. Ease of Inspection

- Fast Visual Assessment
- Ease of Repair

D. Control of Corrosion under Insulation (CUI)

- Seamless Installation
- Adheres to Substrate

E. Petroleum and Chemical

- Reduces loss due to heating and cooling (sludge build up)
- Eliminates over 85% of solar heat transfer - highly reflective
- Adheres to hot and cold surfaces (-80° F(-66.2°C) to +350° F(176.7°C) and can insulate surfaces to 500° F
- Can be applied to surfaces up to 350F without disrupting operations
- Does not require jacketing allowing for visual inspection
- No seams to leak and cause corrosion issues
- Not prone to wind, hail or snow load damage
- Adheres directly to surface (eliminating moisture between insulation and surface causing scale and corrosion (CUI)
- Little to no maintenance and easy to use and repair
- Reduces or stops expansion and contraction, which causes roof damage

F. More Advantages

- Creates a better work environment, increasing productivity
- Provides a constant, uninterrupted thermal barrier regardless of the length or size of the job
- Extremely cost effective
- Can be tinted most light to medium colors by manufacturer or in country
- Environmentally Friendly: Low VOC's and No Heavy Metals

G. Application Facts

- 15 mil to 20 mil per coat
- Performed by local certified applicators
- Surface application temperatures 45° F and rising (7° C) to 350° F (177° C)
- Uninhibited airless spray application between 15 and 30 mils on flat surfaces, with weather and conditions acceptable, a team of two persons can apply 550 SF per hour using conventional airless spray equipment
- Flash time under normal dry conditions is two (2) hours or less - much faster on warm to hot surfaces
- Product is 83% Solids By Volume
- Surface Preparation: SP2 Hand Tool Cleaning as defined by Steel Structures Paint Council
- Appropriate primer recommended for ferrous metals
- Product is mixed utilized a square sheet rock mud paddle
- Generally installed with airless spray equipment rated at 2 to 3 gallons per minute at 3000 psi
- Small applications and repairs may be achieved by use of the Quick Gun or brush and roller as needed.