product data

carboline®

THERMO-LAG® 3002

EPFP Jet-Fire Coating

Selection & Specification Data

Generic Type

A two component, epoxy based, thermally activated, intumescent coating which is primarily spray applied directly over Thermo-Lag® 3000 series EPFP. Thermo-Lag® 3002 provides a hard, durable duplex system that allows for the reduction of coating thickness in a jet fire environment as well as enhanced environmental resistance.

Description

Thermo-Lag® 3002 is applied to structural elements such as beams, columns, bulkheads, underdecks and risers for exposure to jet fire environments.

Features

- Durable finish – provides a hard, durable finish resistant to normal wear
- Thin film coating – offers an economical solution to alternative fireproofing
- VOC compliant
- Easy repair – if damaged it can be repaired easily using material as putty

Primers

Thermo-Lag® 3000 and Thermo-Lag® 3002 should be applied over a compatible primer. A number of primers have been tested and are compatible as listed below:
Carboguard® 888
Carboguard® 893SG
Carboguard® 890
Carbomastic® 242
Carbozinc® 858
Carbomastic® 15
Carbozinc® 859 series
Rustbond® Penetrating Sealer
Carbozinc® 11 / Rustbond®
If the steel has already been coated with another primer, refer to Carboline Technical Service for advice before applying the Thermo-Lag® system. Thermo-Lag® 3000 and Thermo-Lag® 3002 should be applied over properly prepared surface. Surface preparation should be carried out in accordance with the application instructions for the selected primers.

Mesh

Use High Temperature (CF) Mesh

Dry Film Thickness

Typical thickness for certified Jet-Fire protection: 3mm

Solids Content

100% by volume

Theoretical Coverage Rate

0.33 square metres per litre at 3mm (3000 µm)
1.0 square metres per litre at 1 mm (1000 µm)

Mix Ratio

By Volume: 1:1 (Part A : Part B)
By Weight: 1.00 : 0.97 (Part A : PartB)

Limitations

Not recommended for steelwork subject to long-term surface operating temperatures over 65°C (150°F) in normal use.

Physical Data (Typical Values)

Colour	Part A: White Part B: Beige Mix: Off White
Finish	Textured
Specific Gravity	Part A: 1.38 Part B: 1.34 Mix (wet): 1.36
Volume Solids	100%
VOC (EPA Method 24)	Mix as supplied: 13 grams / litre
Mix Ratio	1:1 by volume (Part A : Part B)
Pot Life	Limited – Apply using plural component equipment
Cure Time 24°C / 50% RH	Recoat: 1-4 hours Touch: 1-4 hours Handle: 24 hours Topcoat: 24 hours
Durometer Hardness	Shore D: 55 (fully cured) Shore D: 40 (for topcoating)
Film Build (Spray)	3 mm (3000 µm)
Flash Point	Part A: 90.6ºC Part B: 118.3ºC

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Application Equipment

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results. **General Guidelines**:

Spray Application (General) Tested and approved plural component units suitable for the application of THERMO-LAG 3000 can be purchased from AirTech Spray Systems, Inc. of Houston, Texas, Coverdale Pneumatics Ltd. of Teeside UK, or Spray Quip of Houston, Texas.

Plural Spray Typical Set-Up Description

Proportioning Unit Ratio	1 : 1 (volume)
Air Motor	Fluid to Air: 45:1 or greater
Transfer Pumps (2)	Fluid to Air no greater than 10:1 Transfer pumps should be mounted on air driven rams
Transfer Feed Lines	3 metres (10') x 25 mm (1") ID solvent resistant hose
In-line Fluid Heaters (2)	Controllable, capable of producing temperatures to 71°C (160°F)
Delivery Hose (2)	Heated (controllable) 19mm (3/4") I.D. and solvent resistant. Hose may vary in length dependent upon power ratio of proportioning units' air motor. Hoses must be high pressure minimum burst pressure of 10,000 psi, minimum-working pressure of 3500 psi.
Mixer Manifold	High pressure and fitted with bleed valves for ratio checks.
Static Mixer	19mm (3/4") I.D. x 380mm (15") long (minimum)
Whip Hose (Spray)	4.5 metre (15') x 12mm (1/2") I.D. Hoses must be high pressure, minimum burst pressure of 10,000 psi, minimum working pressure of 3500 psi.
Whip Hose (Dispensnig)	As above, length reduced to practical minimum.
Gun	Binks 1M Mastic Airless or similar
Tip Size	0.035" - 0.055" Reverse-A-Clean or equal (dependent upon pump)
Fan Size	150-250mm (6" – 10")

Typical Settings

	Component A	Component B
Tank Temperatures	40°C	40°C
In-Line Heaters	60°C	65°C
Water Tank Flush	70° - 90°C	
Water Tank Re-Circ.	55°C (return)	
Tip Nozzle	0.039" (639)	
Spraying Pressure	3000-4000 psi	

Testing / Certification

Lloyd's Register of Shipping (LRS)
Det Norske Veritas (DNV)
Southwest Research Institute (SWRI)
Norsok

Packaging, Handling & Storage

Pack Sizes 9 US gallon two component kits

Flash Point (Setaflash) Part A: 90.6ºC
Part B: 118.3ºC

Storage Temperature & Humidity Store indoors, off the ground, keep dry.
0°C to 38°C
0-90%

Shelf Life Part A & B: 9 months minimum

***Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.**

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