

ARCHCO™ 453HT AIRLESS

Heat Resistant Coating Single-Leg

Description

Archco™ 453 HT is a high solids, fast curing, technologically advanced epoxy-phenolic novolac lining. It is specifically designed to handle the harsh environments in the petroleum industry, including all petroleum crudes. It is an excellent internal lining to use in free water knockouts, treaters, separators, and tanks with high operating temperatures. It combines excellent heat resistance with outstanding corrosion protection. Archco™ 453 HT resists immersion temperatures up to 325°F (163°C) for many applications and higher temperatures in non-immersion service.

Uses

Steel or concrete of any size in the petroleum industry, including petroleum bulk storage tanks, downhole tubular pipes, downhole casing exteriors, interior and exterior pipes, floors, tank pads, trenches, troughs, sumps and pits.

Features

- Excellent adhesion
- High temperature stability
- Abrasion and impact resistance
- High temperature water resistances, oil & gas
- Thermal and mechanical shock resistance
- Excellent flexibility
- Resists wide range of chemicals, produced water, sea water

Application

All surfaces must be clean and dry, free of dust, dirt, oil or other foreign matter. Steel surfaces shall be abrasive blasted to SSPC 10 near white finish with a minimum of 3-5 mil (76 - 127 microns) angular profile for best results. Concrete shall be abrasive blasted or etched with 10% muriatic acid (hydrochloric acid). Use of a primer is required for concrete to improve adhesion and minimise outgassing. See a Denso representative for additional information.

Single-leg airless equipment is recommended for application. A pump with 68:1 or greater power ratio is recommended. The fluid line should be ½" (12.7 mm) ID minimum (recommended). A reversible tip (0.029"-0.035" / 0.74-0.89 mm) is suggested. Archco™ "Spray Application Guidelines" are available upon request.

For heavily pitted or porous steel, the spray-roll-spray technique is recommended. Spray-apply approximately 50% of the required film thickness followed immediately with a short-nap roller or squeegee to work material into bottom of pitted areas. Follow the rolled or squeegee application with a spray application of the product to the remainder of the required film thickness. We recommend thinning the material with 2% Archco™ 400E Thinner to facilitate in this type of application. Thinning reduces handling qualities of the lining and will slow curing. For airless spray equipment, add thinner while the resin and hardener are being thoroughly mixed. Pre-heating of the components or mixed system is not recommended as long as the materials have been stored as recommended in the Handling section above. Keep in mind that at elevated temperatures the gel time will be faster and the pot life will be reduced. It is important to understand that this is a single coat, continuous application procedure. Consult Archco™ representative or Technical Services Department for more information.



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TECHNICAL DATA

PROPERTIES	VALUE
Solids Content by Volume	86 - 90%
Minimum Dewpoint / Substrate Differential	Dewpoint +5°F (+3°C)
Minimum Substrate Temperature	60°F (16°C) - 140°F (60°C)
Minimum Ambient Temperature	60°F (16°C) - 140°F (60°C)
Mixing Ratio (A/B) by Volume	4:1
Recommended Thickness	20 - 40 mils DFT (0.50 mm - 1.02 mm DFT)
Theoretical Coverage	
@ 1 mil dry (0.02 mm)	1410 sq. ft. per gallon (34.6 sq. m. per liter)
@ 20 mil dry (0.50 mm)	70 sq. ft. per gallon (1.7 sq. m. per liter)
@ 40 mil dry (1.02 mm)	35 sq. ft. per gallon (0.86 sq. m. per liter)
Minimum Dry Time @ 77°F (25°C) & 50% Relative Humidity (ASTM D 1640)	
To Touch	2.5 - 3 Hour
To Handle	3.5 - 4 Hours
To Recoat	4 Hours
Maximum Recoat Time	8 Hours
Cure for Immersion (Shore D 75 - 80) @ 77°F (25°C)	16 hours
Flash Point	45°F (7°C)
Hardness	(Shore D min.): 80
Temperature Resistance*	
Dry Heat	400°F (204°C)
Short Term	700°F (371°C)
Pot Life @ 72°F (22.2°C)	90 mins.
Colour	Tan
VOC	0.83 lbs/gal (100 g/L)

*Note: Continuous immersion temperature resistance is dependent on particular reagent exposure. Consult a Denso representative.

STORAGE: Minimum 24 months when stored in original containers @ 65°F (18°C) to 85°F (30°C).

CLEANING: Clean equipment with MEK or equivalent solvent cleaner, such as Archco™ 400E Thinner.

HEALTH AND SAFETY: Wear protective clothing and ensure adequate ventilation. Avoid contact with skin and eyes. See safety data sheet for further information.

PACKAGING: 5 gallon (19 liter) kit. Other kit sizes available upon request.

Dispensing guns and static mixing tips (50 mL or 375 mL) sold separately.



DENSO (AUSTRALIA) PTY LTD

77 - 95 National Boulevard

Campbellfield, VIC 3061

Tel: +61 3 9356 7600

Fax: +61 3 9356 7699

www.densoaustralia.com.au

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