

ARCHCO 453HT™ EPOXY CAULK

Heat-Resistant, Epoxy-Phenolic Novolac Caulk

Description

Archco 453HT Caulk is an ultra-high solids, fast-curing, technologically advanced epoxy-phenolic novolac caulk used for sealing steel transitions. It is specifically designed to handle the harsh environments in the petroleum industry, including all petroleum crudes. It is an excellent caulking material to use with internal pipeline sleeves with high operating temperatures. It combines excellent heat resistance with outstanding corrosion protection. Archco 453HT resists immersion temperatures up to 325°F (163°C) for many applications and higher temperatures in non-immersion service.

Uses

- Storage tanks
- Tubular pipes
- Casing exteriors
- Interior and exterior pipes
- Tank floors
- Tank pads
- Trenches
- Troughs
- Sumps
- 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
- Excellent resistance to H₂S gases

Surface Prep

All surfaces must be clean and dry, free of dust, dirt, oil or other foreign matter according to SSPC SP-1. 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. Use of



TECHNICAL DATA SHEET

a primer is required for concrete to improve adhesion and minimize outgassing. See a Denso representative for additional information.

Application

This product is supplied in cartridge form. Application equipment is normally a two component cartridge gun in combination with a static mixer tip. The cartridge gun may be manual or air-assisted. Keep in mind that the first material exiting the static mixing tip will likely be off-ratio and should be discarded. The static mixing tip may be omitted, but the material must be thoroughly mixed prior to use. This is normally accomplished using a wooden stir stick. Application of the caulk may be accomplished directly from the gun using the mixing tip or with a trowel or other tool with a wide, flat blade. Any variation in product color during application will indicate the product is off-ratio.

Consult Denso representative for more information.

Storage

Minimum 18 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 & Safety

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

Packaging

50 ml dual cartridges.

Dispensing guns and static mixing tips (50 ml) sold separately.

Archco 453HT™ Epoxy Caulk

TECHNICAL DATA

PROPERTIES

VALUE

Solids Content by Volume	98 - 100%
Minimum Dewpoint / Substrate Differential	Dewpoint +5°F (+3°C)
Minimum Substrate Temperature	60°F (16°C)
Minimum Ambient Temperature	60°F (16°C)
Mixing Ratio (A/B) by Volume	4:1
Recommended Thickness	10 - 250 mils DFT (254 - 6350 microns DFT)
Theoretical Coverage	
@ 1 mil dry (0.02 mm)	1604 sq. ft. per gallon (39.4 sq. m. per liter)
@ 20 mil dry (0.50 mm)	80 sq. ft. per gallon (2.0 sq. m. per liter)
@ 40 mil dry (1.02 mm)	40 sq. ft. per gallon (1.0 sq. m. per liter)
Minimum Dry Time @ 77°F (25°C) & 50% Relative Humidity (ASTM D 1640)	
To Touch	1 Hour
To Handle	2 - 3 Hours
To Recoat	3 Hours
Maximum Recoat Time	6 Hours
Cure for Immersion (Shore D 75 - 80)	
@ 77°F (25°C)	12 hours
Flash Point	>200°F (93°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°C)	30 mins.
Color	Tan
VOC	0.12 lbs/gal (14 g/l)

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



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