SIP Industries
Quality Manufacturer Since 1960

Certificate of Compliance : Cement-Mortar Asphalt Lining

Date	

SIP certifies that our Cement Lines adhere to the Waterworks industry standards. The lining and application are to SIP and manufacturers' requirements. Please refer to our website www.sipindustries.com for up to date product data and technical advisories.

The purpose of the cement lining on the inside of ductile iron fittings is to reduce tuberculation and/or corrosion from building up on the fitting walls. Tuberculation and/or corrosion is minimized as the cement lining creates a high pH at the fitting wall and provides as a physical barrier between the walls. The asphaltic lining for the inside of the fittings is no longer required by the AWWA but is our standard offering unless requested otherwise.

The asphaltic coating and lining on the inside of pipe and fittings can be used as a substitute for the moist-curing process. The Asphaltic coating and lining on the outside of pipe and fittings is for cosmetic purposes and provide some level of corrosion protection prior to being installed.

Material : Portland Type I-II Cement Mortar per ANSI/AWWA C104/A21.4, ASTM C150, Mixed with clean potable water
Asphaltic coating and lining per ANSI/AWWA C104/A21.4, NSF-61 & 372

Standards : NSF-61 & 372, ANSI/AWWA C110/A21.10, ANSI/AWWA C111/A21.11, ANSI/AWWA C153/A21.53

Technical Specifications :

Size	Standard Thickness (Min.)	Double Thickness** (Min.)	Asphaltic Coat (Min.)
2" - 12"	1/16"	1/8"	2 mil
14" - 24"	3/32"	3/16"	2 mil
30" - 64"	1/8"	1/4"	2 mil

SIP fittings are lined and coated with the above Minimum Standards unless specified otherwise on purchase.

Note: **Mechanical Joint Sleeves, Caps, and Plugs are provided with asphaltc coating only, as per AWWA C110/C153.*
*** Double Cement Lining must be specified upon order placement.*

Approved Repair

Materials & Equipment : Approved mortar and asphaltic material. Wire brush, Water spray bottle, Cement/Sand sifter, measuring cup, bucket, cement trowel

Cement-Mortar Lined Fittings

- Remove any loose cement from damaged area.
- Clean and remove any corrosion of surface to be repaired.
- Pour cement through a wire type sifter basket and sift out any large items.
- Mix sifted cement with a sand and water per mortar manufacturers recommendations.
- Lightly wet surface to be repaired and let set until it is just damp.
- Fill in damaged area, smooth out with a damp sponge.
- Let cement dry and cure per mortar manufacturers recommendations*.
- Then coat with approved asphaltic coating**.

Note: **Repaired cement lining can be kept moinst by the asphaltic coating or with the use of wetted burlap bags placed over the entire opening of the fitting. Protect patched area from freezing. Allow 48 hours after repair before using the fitting in service.*
***Apply the asphaltic coating 5 - 15 minutes after mortar is applied, after surface water has evaporated.*

Asphaltic Coating* (Interior & Exterior)

- Wipe area free of any loose paint, dust or debris with a cloth.
- Recoat exterior areas of the fitting with the paint provided as needed using a standard paint brush.

Note: **Paint repair to the fitting body or mechanical joint includes use of a hand steel bristle brush to remove loose corrosion.*

Technical Notes

- Pressure washing is not recommended, if required contact SIP before proceeding for recommendations.
- Maximum media temperature should not exceed 150°F.
- Glycol media concentration is not to exceed 40% and not to exceed 150°F or below Freezing.
- Some fittings such as caps, plugs, glands and sleeves will not have cement lining only asphaltic coating.
- Warranty of the lining and coatings will be voided unless these instructions are followed.

Sincerely,

Roger Johnson
Director of Technical Services
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Project Name	
Project Location	
Distributor	
Contractor	