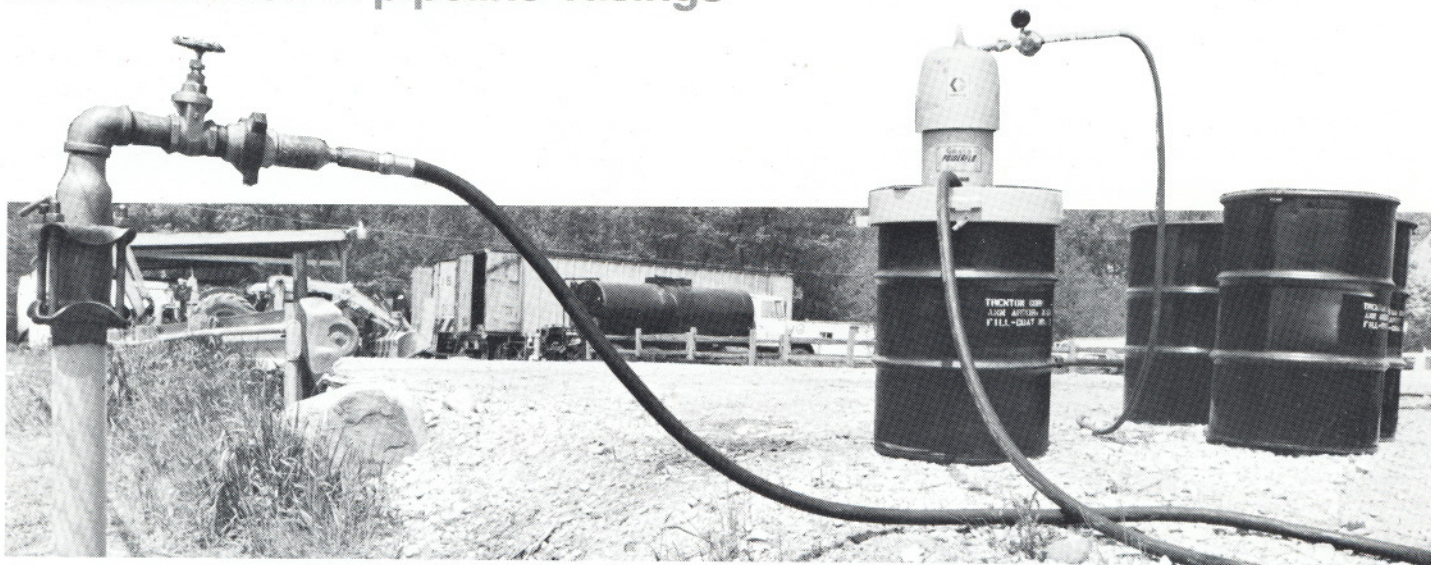


TRENTON™

Fill-Coat #2

Cold-Installed Casing Filler
for installation in pipeline casings



Fill-Coat #2 being pumped by air-driven mastic pump from 55 gallon drums into the casing vent.

Fill-Coat #2 casing filler is a petrolatum based corrosion preventative compound, used to fill the pipeline casing annulus, specifically designed for cold installation for small quantity requirements. It prevents corrosion by displacing water that is present and preventing water from re-entering the casing.

Water or water vapor is present in most pipeline casings making possible galvanic corrosion of the carrier pipe. Also, a "water short" can occur through the water in the casing, allowing cathodic current to flow through the water and on to the pipe in the casing. Under these circumstances, cathodic current is increased and the casing is sacrificed as well. Casing filler prevents this from occurring. Further, in some instances the pipe may be shorted to the casing through a direct metal-to-metal contact and filling the casing might correct this condition on some occasions. In any case, it is difficult, if not impossible to cathodically protect pipe in casing, so that filling of the casing will protect the pipe from corrosion regardless of the circumstances.

When the casing is filled with Fill-Coat #2, it displaces accumulated water from the casing and prevents new water from re-entering through leaks in the seals or through condensation. Thus, corrosion that might have been occurring is prevented, cathodic current to protect the pipeline in the casing may be reduced, and the sacrifice of the casing by cathodic current flowing through casing water is halted. In some instances, the carrier pipe will be "floated" off the casing bottom by the filler. This allows a film of casing filler material to coat the shorted contact surfaces of the pipe and casing. Since Fill-Coat #2 is electrically nonconductive, a metallic short may thus be corrected.

After being pumped into the casing, the filler remains as a firm gel, pliable enough to allow the carrier pipe to be removed if necessary. It is essentially inert and non-volatile and will remain unchanged indefinitely.

Continued

Fill-Coat #2 casing filler is delivered to the jobsite in 55 gallon drums. It is pumped by mastic pump out of the drums directly through the casing vent, until the casing void is filled and material discharges out the other vent. Adequate openings through the casing must be present where the vent is attached so that the flow of casing filler is not unduly restricted. As the casing is filled, air and water are purged out the opposite vent. It is preferable, although not necessary, that casing vents be installed with the low end vent attached to the bottom of the casing and high end vent attached to the top of the casing. This makes possible the removal of water prior to installation of casing filler either by blowing it out with an air compressor or pumping it out with a suction pump.

Installation of Fill-Coat #2 casing filler is an acceptable "other measure" under the code requirements of the Department of Transportation. The DOT code under Regulations for the Transportation

of Natural and other Gas by Pipeline, Title 49 of the code of Federal Regulations, Part 192, Subpart I, Section 192.467, Paragraph C which states, "Except for unprotected copper inserted in ferrous pipe, each pipeline must be electrically isolated from metallic casings that are a part of the underground system. However, if isolation is not achieved because it is impractical, other measures must be taken to minimize corrosion of the pipeline inside the casing." Fill-Coat #2 casing filler installed as an "other measure" to minimize corrosion is often much less expensive in the long term than increasing cathodic protection current or attempting to clear the short by other construction methods.

In summary, Trenton Fill-Coat #2 cold-installed casing filler provides excellent protection against corrosion and is economically advantageous for small quantity requirements.

Description:

Fill-Coat #2 is petolatum based corrosion preventative compound that is specifically designed to be installed cold out of a 55 gallon drum for small quantity requirements. It remains in a firm gel consistency at ground temperatures commonly found in normal pipeline operations.

End Use:

Fill-Coat #2 is used to fill the annular space between the pipeline casing and the carrier pipe. It displaces water that may be present and it prevents water from re-entering thereby mitigating any further corrosion.

Application Procedures:

Fill-Coat #2 is shipped directly to the jobsite in 55 gallon drums and pumped (at temperatures above 55°F) by air driven mastic pump directly into the casing through one casing vent until it flows from the opposite vent. Fill-Coat #2 can be heated and pumped as a liquid if desired.

A 10:1 ratio mastic pump with follower plate is available from Trenton on a rental basis.

Specifications:

Color	dark brown
Specific Gravity@60°F	.80-.90
Pour Point	80-100°F
Flash Point	300°F min.

Packaging:

55 Gallon drums

Advantages:

- Prevents galvanic and atmospheric corrosion within casings
- Displaces and prevents re-entry of water in casing
- Satisfies DOT requirements for shorted casings
- Carrier pipe can be removed
- Inert, non-hazardous, and non-volatile
- Pumpable at temperatures above 55°F without heating
- Economical for small quantity requirements

Fill-Coat Estimated Quantity Requirement:

Pipe x Casing Size (in inches)	Gallon/Foot
4 x 8.....	1.8
6 x 10.....	2.3
8 x 12.....	3.0
10 x 14.....	2.5
12 x 16.....	2.9
14 x 20.....	7.2
16 x 20.....	4.8
20 x 24.....	5.9
22 x 26.....	6.0
24 x 30.....	11.4
26 x 30.....	7.3
30 x 34.....	8.3
30 x 36.....	14.1
36 x 42.....	16.4

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