Royston®

Application Guideline

1.0 SCOPE

This document contains general instructions and recommended practices for the application of Royston Royfill casing filler. Royfill C is a cold applied, pumpable casing filler supplied in 55 gallon drums and Royfill H is hot applied casing filler that is supplied in a tanker truck. The specifics of where the product can be used are detailed in Section 2.0. For assistance in coating selection, surface preparation, application or inspection, please contact a Chase Representative.

2.0 MATERIALS

2.1 Royfill C (404B) - A cold applied casing filler designed to prevent corrosion in new and existing casings that are up to 200 feet long. This filler is a specially formulated, petroleum based compound with corrosion inhibitors and inert solids; pumped cold from a 55 gallon drum. This one step, pump injected mastic fills and coats the pipe and casing, encapsulating areas of damaged coating and eliminating electrolytic shorts with a high dielectric, non-conductive, protective barrier.

2.2 Royfill H (406) – A hot applied casing filler designed to prevent corrosion in new and existing casings for large or multiple casing projects. This filler is a specially formulated, petroleum wax based compound with corrosion inhibitors and inert solids; pumped hot from a tanker. This one step, pump injected mastic fills and coats the pipe and casing, encapsulating areas of damaged coating and eliminating electrolytic shorts with a high dielectric, non-conductive, protective barrier.

2.3 Enviroseal C - A fast and secure way to prepare a casing for a hot or cold pumped petrolatum wax injection of casing filler. Enviroseal C end seals are designed to provide a closure of the annular space between the carrier pipe and the pipe casing. Enviroseal C works on both symmetric and asymmetric annular voids. Enviroseal is unique in that it fully bonds to the pipeline and the casing.

2.4 Royston Mastic Pump – A specifically designed pneumatic pump for pumping Royston Royfill C casing filler from 55-gallon drums into pipeline casings without heating, even at temperatures encountered during winter operations. The assembly is designed to operate with a compressed air unit capable of at least 105 cubic feet per minute output. It is also designed to utilize readily available equipment for lifting and moving the pump assembly.

3.0 PREPARATION

3.1 Enviroseal end seal system is the preferred method for sealing casing prior to the application of Royfill C and H. If seals are already in place they should be inspected prior to filling the casing. All seals will need to be able to handle the pressure generated by the casing fill during pumping. If Royfill H is to be used, the end seal must also not be affected by the casing fill temperature during pumping.

3.2 Surface Preparation for Enviroseal

3.2.1 All substances that will impede bond or otherwise be detrimental to the performance of the coating system must be removed prior to the coating application. This includes all loose surface material, rust, dirt, dust, moisture, grease, oil, sharp edges, burrs, mill scale, welding splatter and shop lacquer.

3.2.2 The pipe cleaning must meet either SSPC-SP 2 or SSPC-SP 3 at a minimum, but SSPC-SP 6/NACE No. 3 can also be used.

3.2.2.1 SSPC-SP 2 HAND TOOL CLEANING: Scrapers, files and wire brushes.

3.2.2.2 SSPC-SP 3 POWER TOOL CLEANING: Power brushes and grinders

3.2.2.3 SSPC-SP 6 / NACE No.3 COMMERCIAL BLAST CLEANING
Important to note: Clean the grit or shot off the pipe surface after blasting.

3.2.3 The coating must be applied as soon as practical after cleaning to keep dirt and rust bloom from re-contaminating the pipe surface.

3.2.4 Before coating application the surface must be dry. Preheating may be required to achieve this.

3.3 The Royfill casing fill products contains a corrosion inhibitor so there is no need for any pre-treatment or further preparation of the space to be filled.

4.0 APPLICATION

4.1 Enviroseal C

4.1.1 The minimum application temperature is 40°F (4°C). See individual product data sheets for more detailed application information.

4.1.2 Insert Metazeal Foam strips into the annular space between the casing pipe and the carrier pipe to form a tight seal between the carrier pipe and casing.

4.1.3 Using EVA-POX Epoxy Paste 22 contour the step down of the casings to the pipe into a tapered or cone shape. EVA-POX Epoxy Paste 22 must be stored at or below 80°F prior to mixing to prevent a high exotherm and possible cracks.

4.1.4 Wrap Tapecoat Envirotape over the EVA-POX Epoxy Paste 22, overlapping onto the pipe a minimum of 2".

4.1.5 Presoak the Tapecoat Rugged Wrap in a bucket of water and squeeze out the excess. Wrap it over the Envirotape using a 1" minimum overlap.

4.1.6 Apply Envirowrap over the Rugged Wrap to seal the coating system.

4.2 All water should be blown out of casing just prior to fill, by blowing air from high end top vent, to the low end bottom vent, using 5 PSI.

4.3 Royfill C is pumped into the low end, bottom casing vent from a 55 gallon drum with a Royston Mastic Pump. The pumping is continued until the filler is discharged out the high end casing vent.

4.4 Royfill H is pumped into the low end, bottom casing vent with the use of an insulated, heated tanker truck and factory trained installers. The pumping is continued until the filler is discharged out the high end casing vent.

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