



Scotchkote™

6233/206N/226N/226N+

Fusion-Bonded Epoxy Coating

Field Joint Application Guide

General

This specification covers the requirements for the field application of 3M™ Scotchkote Fusion-Bonded Epoxy Coating to welded joints on line pipe. The work includes the furnishing of all labor, materials, tools and equipment, and the performance of all operations and incidentals necessary for the coating of the welded pipe joints. Coating materials shall be handled, stored, and applied in accordance with the manufacturer's specifications, or as directed by an authorized representative of the coating manufacturer.

All references to SSPC shall be interpreted as Steel Structures Painting Council. All references to NACE shall be interpreted as National Association of Corrosion Engineers.

Surface Preparation

Prior to blast cleaning, the weld zone shall be inspected and pre-cleaned according to SSPC-SP1 to remove mud, oil, grease and loosely adhering deposits. Visible oil and grease spots shall be removed by solvent wiping. Only approved safety solvents which do not leave a residue shall be used.

The exposed metal in the weld area shall be abrasive blast-cleaned to NACE No. 2/SSPC-SP10 ISO 8501:1, Grade SA 2 1/2 near-white finish. The adjacent fusion bonded coating shall be brush blasted to clean and roughen the coating surface for a distance of 2 in/5 cm back from the weld zone. Near-white finish is interpreted to mean that all metal surfaces shall be sand/grit blasted to remove all dirt, rust, corrosion products, oxides, paint and other foreign matter. Very light shadows, very slight streaks or slight discolorations shall be acceptable; however, at least 95% of the surface shall have the uniform gray appearance of a white-metal blast-cleaned surface. Height of anchor pattern profile shall not be less than 1.6 mils 40 µm nor more than 4.3 mils 110 µm. Standards for comparison shall be made available by the contractor.

Prior to coating, the cleaned weld zone shall be inspected to ensure that all cleaning steps have been adequately performed. Blast cleaned pipe surfaces shall be protected from conditions of high humidity, rainfall, or surface moisture. The pipe surface shall not be allowed to flash rust before coating.

Coating Application

The weld zone shall be heated to a temperature not exceed 500°F/260°C using an induction heating coil of sufficient size, width and power to provide the required heat in the weld zone and 2 in/5 cm back under the fusion bonded pipe coating. Graduated Tempilstik* crayons may be used to measure the temperature. Only a small spot of pipe shall be touched with the Tempilstik. Optical pyrometers or infrared sensing devices may be used in addition to, or in lieu of, Tempilstik.

Immediately after heating and while the weld zone temperature is between 425°F/218°C and 488°F/253°C, the weld shall be coated with Scotchkote coating at the specified thickness using the best commercial practice. Apply coating as rapidly as possible to prevent premature cool down of the heated zone. The weld joint coating shall be applied over the full width of the pipe joint and overlap the plant-applied coating no less than 1 in/2,5 cm.

The joint coating shall cure from the residual heat remaining in the heat zone. No quenching or force cooling shall be allowed, and the hot zone shall be protected from adverse weather conditions such as rain or high winds, which would cause cooling at unusually high rates.

Inspection

Upon completion of the coating operation, but prior to storage, the coating shall be inspected for continuity in accordance with NACE Standard RP0490-01. The search electrode shall be steel spring or conductive rubber.

The thickness of the coating shall be checked with properly calibrated magnetic thickness gauge and shall have nominal thickness of 16 mils/406 µm with a minimum of 12 mils/305 µm or as required by the specifications.

* Tempilstik is a registered trademark of the Tempil Corporation.

Handling and Safety Precautions

Read all Health Hazard, Precautionary, and First Aid statements found in the Material Safety Data Sheet, and/or product label prior to handling or use.

Ordering Information/Customer Service

For ordering information, technical information, product information or to request a copy of the Material Safety Data Sheet:

Phone: 800/722-6721 or 512/984-9385

Fax: 877/601-1305 or 512/984-6296

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