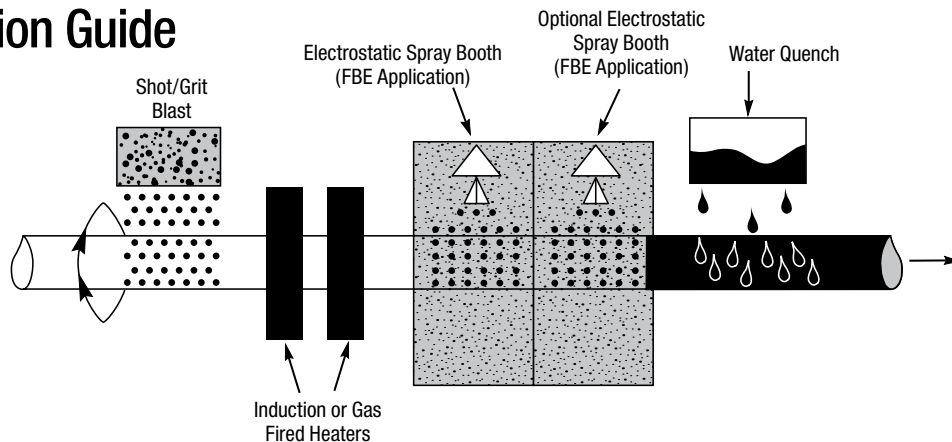


3M™ Scotchkote™ Fusion-Bonded Epoxy Dual Coating 6352

Application Guide



General

This specification covers the requirements for the plant application of 3M™ Scotchkote™ Fusion Bonded Epoxy Dual Coating System 6352. The work includes the furnishing of all labor, materials, tools and equipment, and the performance of all operations and incidentals necessary for the coating.

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, surfaces shall be inspected and pre-cleaned according to SSPC-SP1 to remove 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 exterior pipe surface shall be blast cleaned to NACE No. 2/SSPC-SP10 near-white metal blast cleaning using steel grit or steel grit-shot mixture after pre-heating of pipe to sufficient temperature to remove all moisture. Near-white finish is interpreted to mean that all metal surfaces shall be blasted to remove all dirt, mill scale, rust, corrosion products, oxides, paint and other foreign matter. Very light shadows, very slight streaks or slight discoloration shall be acceptable; however, at least 95% of the surface shall have the uniform gray appearance of a white-metal blast cleaned surface.

The cleaning media shall be selected to achieve an anchor pattern profile of not less than 1.5 mils (40 µm) or more than 4 mils (100 µm.) The contractor shall make available standards for comparison.

For consistent surface finish, a stabilized working mix of the cleaning media shall be maintained by frequent small additions of new grit or shot commensurate with consumption; infrequent large additions shall be avoided.

The cleaning media working mix shall be maintained clean of contaminants by continuous and effective operation of blasting machine scalping and air wash separators.

Any raised slivers, scabs, laminations or bristles of steel remaining on the newly cleaned surface shall be removed using abrasive grinders or by hand filing. This cleaning operation shall not burnish or destroy the anchor pattern.

Prior to coating, the cleaned pipe shall be inspected to ensure that all cleaning steps have been adequately performed. Presence of contaminants indicates a malfunction of the cleaning equipment, which shall be corrected immediately.

If cleaning media or other loose contaminants have entered the interior of the pipe, clean, dry, oil-free compressed air shall be used to remove these in a manner that shall not affect the other clean pipe or pipe to be coated. Vacuum cleaning or other suitable methods may be used in lieu of compressed air cleaning.

The 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

Clean pipe shall be preheated so the pipe temperature at the entrance to the base coating station is between 405°F - 490°F (207°C - 254°C). The heat source shall not leave a residue or contaminant on the pipe surface. 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. The calibration of the optical pyrometer shall be checked at least twice daily.

Infrared sensing devices shall be used to monitor temperature of the applied coating. Do not use on uncoated/bare steel. IR temperature measurements on coating are usually 20°F - 30°F cooler than actual steel temperature. Check temperature variance with Tempilstik.

Apply base per instruction, then apply top coat before base coat has cured. For more specific information, contact your 3M sales representative.

Following application of 3M™ Scotchkote™ Fusion Bonded Epoxy Dual Coating System 6352 epoxy top coating, follow cure guide for time before force cooling.

During the period of coating and curing, the pipe shall be handled so as to avoid damage to the coating.

After the coating has cured, it shall be cooled with air or water spray prior to inspection and repair.

Inspection

Upon completion of the coating operation, but prior to storage, the coating shall be inspected for continuity utilizing the voltage calculation methodology of NACE Standard RP0490-95. Use approximately 4000 volts. The search electrode shall be steel spring or conductive rubber.

The thickness of the coating shall be checked with properly calibrated gauges and shall have a minimum thickness as specified.

Coating Repair

Areas of pipe requiring small spot repairs shall be cleaned to remove dirt and damaged coating using surface grinders or other suitable means. All dust shall be wiped off. For pinholes only, surface preparation is not required other than removing surface dirt, oil, grease and other detrimental contaminant's

Handling & 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.

Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.



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80-6111-8308-0

which impair the adhesion of the repair material. 3M™ Scotchkote™ Liquid Epoxy Coating 323 or 3M™ Scotchkote™ Liquid Epoxy Coating 352 shall be applied in small areas to the thickness as specified. The freshly coated area shall be allowed to properly cure prior to handling and storage. Liquid epoxy shall not be applied if the pipe temperature is 41°F/5°C or less, except when manufacturer's recommended heat curing procedures are followed. Alternatively, for pinhole areas, the heat bondable polymeric 3M™ Scotchkote™ Hot Melt Patch Compound 226P shall be applied in small areas to a minimum thickness of 16mils/400 µm in addition to the parent coating. Abrade the area with sandpaper. A non-contaminating heat source shall be used to heat the area to be repaired to approximately 350°F/177°C. When the Patch Compound sticks to the hot surface, it is hot enough. While continuing to heat the cleaned and prepared area, the patch compound shall be applied by rubbing the stick on the area to be repaired in circular motion to achieve a smooth, neat appearing patch. The patch shall be allowed to cool before handling.

Storage, Handling and Shipping

Pipe shall be handled and stored in a manner to prevent damage to pipe walls, beveled ends and coating. Pipe or coating damaged in handling or other operations shall be satisfactorily repaired.

Stacking in the yard shall be in accordance with good safety practices or in accordance with Purchaser's specifications. Sufficient spacers and padding shall be used to prevent damage to coating.

Pipe will be transported from the coating yard to the job site by truck, rail or barge as specified in the purchase order. Pipe shall be shipped using sufficient dunnage to adequately protect the pipe and its external coating. Chains or wire rope shall not be used without sufficient padding to prevent damage to the coating.

Pipe shall be loaded for shipping in compliance with existing shipping standards and regulations.

Ordering Information/Customer Service

For ordering technical or product information, or a copy of the Material Safety Data Sheet, call:
Phone: 800/722-6721 or 512/984-9393
Fax: 877/601-1305 or 512/984-6296

Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture for a period of 12 months from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**