

Field-Applied Underground Wax Coating Systems for Underground Metallic Pipes: Application, Performance, and Quality Control

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ABSTRACT

This NACE International standard practice includes guidelines for surface preparation, material requirements, application, and handling of hot- and cold-applied wax and component wrappers and wax-based tape coating systems for the protection of underground pipe, fittings, and valves. The standard outlines material requirements for hot- and cold-applied wax coatings, and handling of the coated components, and includes five tables that provide material requirements and references to standard test methods for the various coating materials discussed. This standard is intended for use by corrosion control personnel, design engineers, project managers, purchasers, and construction engineers and managers.

KEYWORDS

coatings, cold-applied wax coatings, hot-applied wax coatings, microcrystalline wax coating, overwrap, pipelines, protective coatings, surface preparation, tape coating systems, TG 296, STG 03, wax coating systems, ASTM D92, RP0375, SP0169

Foreword

In NACE standards, the terms “shall,” “must,” “should,” and “may” are used in accordance with the definitions of these terms in the NACE Publications Style Manual. The terms “shall” and “must” are used to state a requirement, and are considered mandatory. The term “should” is used to state something good and is recommended, but is not considered mandatory. The term “may” is used to state something considered optional.

Wax coating systems are designed to aid in the protection of underground metallic pipes from corrosive environments. This NACE International standard practice covers surface preparation, material requirements, application, and handling of hot- and cold-applied wax and component wrappers and wax-based tape coating systems for the protection of underground pipe, fittings, and valves. This standard is intended for use by corrosion control personnel, design engineers, project managers, purchasers, and construction engineers and managers.

This standard was originally prepared in 1975 by Task Group (TG) T-10D-16, a component of NACE Unit Committee T10D on “Protective Coating Systems.” It superseded NACE Publication 2L161.¹ The scope of the original NACE Standard RP0375 included only the application of hot- and cold-applied wax coatings. When this standard was revised by the task group in 1994, the section on wax-based tape coatings was added. In 1999, this standard was reviewed by TG T-10D-17/T6A-63 and reaffirmed with editorial changes. In 2018 and 2006, it was revised by TG 296, which is administered by Specific Technology Group (STG) 03, “Protective Coatings and Linings—Immersion/Buried.” It is sponsored by STG 04, “Protective Coatings and Linings—Surface Preparation”; and STG 35, “Pipelines, Tanks, and Well Casings.” This standard is issued by NACE under the auspices of STG 03.

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