

Application of Tape Coatings for External Corrosion Protection of Buried Metal Pipelines

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ABSTRACT

This updated NACE International standard practice provides the most current technology and industry practices for material requirements and the use of tape coatings for external mainline coating, coating repair, coating rehabilitation, and coating weld joints on buried metal pipelines. The standard is applicable to underground metal pipelines in the oil and gas gathering, distribution, and transmission industries, as well as water and wastewater pipelines. This standard is intended for use by corrosion control personnel, design engineers, project managers, purchasing personnel, and construction engineers and managers.

KEYWORDS

Adhesion test, bitumen-based tapes, bituminous tape, blast-cleaned, bond test, cathodic disbondment, cigarette wrap, circumferential wrap, coal tar tape, coating materials, coating systems, cohesive separation, coil-splice welds, cold applied, cutback area, dielectric strength, elongation, field joint area, field welds, flammability, holiday inspection, hot applied, impact resistance, inner layer tape, laminate polymeric tape, liquid adhesive, longitudinal welds, maximum service temperature, mesh-backed polymeric tape, multilayer polymeric tape system, primer, pull tension, rockshield, single-layer tape system, spiral welds, spiral wrap, substrate, tensile strength, TG 251, STG 03, viscoelastic coating, viscoelastic tape, water vapor transmission rate, wrap direction.

Foreword

This NACE International standard practice provides the most current technology and industry practices for material requirements and the use of tape coatings for external mainline coating, coating repair, coating rehabilitation, and coating weld joints on buried metal pipelines. This standard is intended for use by corrosion control personnel, design engineers, project managers, purchasing personnel, and construction engineers and managers. It is applicable to underground metal pipelines in the oil and gas gathering, distribution, and transmission industries, as well as water and wastewater pipelines.

This standard was prepared in 2009 and revised in 2019 by NACE Task Group (TG) 251, “Coatings, Tape for External Repair, Rehabilitations, and Weld Joints on Pipelines.” This TG is administered by Specific Technology Group (STG) 03, “Coatings and Linings, Protective: Immersion and Buried Service.” It is sponsored by STG 04, “Coatings and Linings, Protective: Surface Preparation,” and STG 35, “Pipelines, Tanks, and Well Casings.” This standard is issued by NACE International under the auspices of STG 03.

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Application of Tape Coatings for External Corrosion Protection of Buried Metal Pipelines

1.	General	4
2.	Definitions	4
3.	Tape Coating Systems	5
4.	Tape Coating Requirements	7
5.	Delivery Requirements for Tape Coating System Materials	10
6.	Surface Preparation of Pipe	11
7.	Tape Coating System Application.....	12
8.	Inspection, Repair, and Handling	14
	References	16

Tables

Table 1: Tapes and Application.....	6
Table 2: Accessory Materials.....	6
Table 3: Type A (Coal Tar- or Bitumen-Based Tapes) System Requirements	7
Table 4: Type B (Laminate Polymeric Tape) Tape Requirements.....	8
Table 5: Type C (Mesh-Backed Polymeric Tape) Material Requirements	9
Table 6: Type D (Viscoelastic Tape) Materials Requirements	9
Table 7: Type E Inner-Layer Tape Material Requirements	10
Table 8: Type E Mechanical Outer-Layer Tape Material Requirements	10
Table 9: Type E Total Tape System Material Requirements	14