

# Application, Performance, and Quality Control of Plant-Applied Single-Layer Fusion-Bonded Epoxy External Pipe Coating

# Application, Performance, and Quality Control of Plant-Applied Single-Layer Fusion-Bonded Epoxy External Pipe Coating

This AMPP standard represents a consensus of those individual members who have reviewed this document, its scope, and provisions. Its acceptance does not in any respect preclude anyone, whether he or she has adopted the standard or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not in conformance with this standard. Nothing contained in this AMPP standard is to be construed as granting any right, by implication or otherwise, to manufacture, sell, or use in connection with any method, apparatus, or product covered by Letters Patent, or as indemnifying or protecting anyone against liability for infringement of Letters Patent. This standard represents minimum requirements and should in no way be interpreted as a restriction on the use of better procedures or materials. Neither is this standard intended to apply in all cases relating to the subject. Unpredictable circumstances may negate the usefulness of this standard in specific instances. AMPP assumes no responsibility for the interpretation or use of this standard by other parties and accepts responsibility for only those official AMPP interpretations issued by AMPP in accordance with its governing procedures and policies which preclude the issuance of interpretations by individual volunteers.

Users of this AMPP standard are responsible for reviewing appropriate health, safety, environmental, and regulatory documents and for determining their applicability in relation to this standard prior to its use. This AMPP standard may not necessarily address all potential health and safety problems, or environmental hazards associated with the use of materials, equipment, and/or operations detailed or referred to within this standard. Users of this AMPP standard are also responsible for establishing appropriate health, safety, and environmental protection practices, in consultation with appropriate regulatory authorities, if necessary, to achieve compliance with any existing applicable regulatory requirements prior to the use of this standard.

CAUTIONARY NOTICE: AMPP standards are subject to periodic review and may be revised or withdrawn at any time in accordance with AMPP technical committee procedures. AMPP requires that action be taken to reaffirm, revise, or withdraw this standard no later than five years from the date of initial publication and subsequently from the date of each reaffirmation or revision. The user is cautioned to obtain the latest edition. Purchasers of AMPP standards may receive current information on all standards and other AMPP/NACE/SSPC publications by contacting AMPP Customer Support, 15835 Park Ten Place, Houston, Texas 77084-5145 (Tel: +1 281-228-6200, email: [customersupport@ampp.org](mailto:customersupport@ampp.org)).

## Document History:

2023-03-27: Revised by AMPP Standards Committee (SC) 03, External Coatings-Buried & Immersed

2013-10-04: Revised by NACE Task Group (TG) 031, Pipeline Coating Plant-Applied Single Layer Fusion-Bonded Epoxy: Review of NACE Standard RP0394

2002-02-17: Revised by NACE TG 031

1994-October: Approved as NACE Standard RP0394 by NACE TG T-10D-10, Protective Coating Systems

AMPP values your input. To provide feedback on this standard, please contact: [standards@ampp.org](mailto:standards@ampp.org)

## NACE SP0394-2023

©2023 Association for Materials Protection and Performance (AMPP). All rights reserved.

# Application, Performance, and Quality Control of Plant-Applied Single-Layer Fusion-Bonded Epoxy External Pipe Coating

Foreword, Scope, and Rationale .....	4
Referenced Standards and Other Consensus Documents.....	5
Section 1 General .....	6
Section 2 Definitions .....	6
Section 3 Coating Materials .....	7
3.1 Material Coating Supplier Information.....	7
3.2 Labels.....	7
3.3 Batch Certificates.....	7
3.4 Product Quality Certificate .....	8
3.5 Laboratory Specimens .....	9
Section 4 Production.....	9
4.1 General.....	9
4.2 Surface Preparation.....	9
4.3 Surface Treatments.....	11
Section 5 Coating Application .....	11
Section 6 Production Inspection and Testing .....	12
6.1 Plant Access.....	12
6.2 Inspection Notice.....	12
6.3 Production Tests.....	12
Section 7 Repair.....	16
Section 8 Handling, Storage, and Shipping .....	17
Section 9: Marking .....	17
Other Referenced Documents.....	18
Appendix A Specific Gravity Determination (Mandatory) .....	18
Appendix B Shelf-Life Determination (Mandatory) .....	19
Appendix C Gel Time Determination (Mandatory).....	20
Appendix D Glass Transition and Heat of Reaction Determination (Mandatory).....	21
Appendix E Moisture Analysis Determination (Nonmandatory).....	27
Appendix F Cathodic Disbondment Test (Mandatory).....	28
Appendix G Test for Porosity of the Coating (Mandatory).....	30
Appendix H Flexibility Test (Mandatory) .....	32