Australian Standard®

External fusion-bonded epoxy coating for steel pipes

This Australian Standard was prepared by Committee WS/9, Rolled and Welded Steel Pipes. It was approved on behalf of the Council of Standards Australia on 25 September 1990 and published on 28 March 1991.

The following interests are represented on Committee WS/9:

Interests represented on the committee:

Board of Works, Vic.
Brisbane City Council
Confederation of Australian Industry
Engineering and Water Supply Department, S.A.
Gas and Fuel Corporation of Victoria
Hobart City Council
Hunter Water Board
Metal Trades Industry Association of Australia
Public Works Department, N.S.W.
Rural Water Commission, Vic.
State Electricity Commission of Victoria
Victorian Water and Sewerage Authorities Association
Water Authority of Western Australia
Water Board Sydney
Water Resources Commission, Qld

Additional interests participating in preparation of Standard:

State Energy Commission, W.A.
The Pipeline Authority

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PREFACE

This Standard was prepared by the Standards Australia Committee for Rolled and Welded Steel Pipes at the request of manufacturers and users of fusion-bonded epoxy coating for pipes. It is one of a series of Standards being prepared for alternative coatings to the original coal-tar primer/enamel coating systems.

The fusion-bonded epoxy coating referred to in this Standard is to be applied only to external surfaces of pipes.

Attention is drawn to the fact that this Standard does not purport to satisfy all requirements for pipelines.

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External fusion-bonded epoxy coating for steel pipes

1 SCOPE This Standard specifies requirements for external fusion-bonded epoxy (FBE) coating of steel pipes for protection against corrosion. It includes coating in the mill and coating in the field.

NOTES:

1 Guidelines to purchasers on information that should be supplied by the purchaser and those variables that should or may be agreed upon at the time of enquiry or order are given in Appendix A.

2 Alternative methods for determining compliance with this Standard are given in Appendix B.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS	
1199	Sampling procedures and tables for inspection by attributes
1399	Guide to AS 1199—Sampling procedures and tables for inspection by attributes
1627	Metal finishing—Preparation and pretreatment of surfaces.
1627.4	Part 4: Abrasive blast cleaning
1697	SAA Gas Pipeline Code
2243	Safety in laboratories
2243.2	Part 2: Chemical aspects
2490	Sampling procedures and charts for inspection by variables for percent defective
2885	Pipelines—Gas and liquid petroleum
2990	Quality systems for engineering and construction projects
3900	Quality systems—Guide to selection and use
3901	Quality systems for design/development, production, installation and servicing
3902	Quality systems for production and installation
3903	Quality systems for final inspection and test
3904	Quality systems—Guide to quality management and quality system elements
ASTM	
D 149	Tests for dielectric breakdown voltage and dielectric strength of solid electrical insulating materials at commercial power frequencies
D 257	Tests for D-C resistance or conductance of insulating materials
D 1044	Test for resistance of transparent plastic materials to surface abrasion
D 1653	Test for water vapour permeability of organic coating films
D 1921	Test for particle size (sieve analysis) of plastic materials
D 2370	Test for tensile properties of organic coatings
G 11	Test for effects of outdoor weathering on pipeline coatings
G 14	Test for impact resistance of pipeline coatings (falling weight test)
G 17	Test for penetration resistance of pipeline coatings
G 62	Test methods for holiday detection in pipeline coatings
API RP	
5L1	Recommended practice for railroad transportation of line pipe
5L7	Recommended practice for marine transportation of line pipe

3 DEFINITIONS For the purpose of this Standard, the following definitions apply.

3.1 Batch (FBE Powder)—a manufacturing run, in tonnes.

3.2 Bolster—support for coated pipes during transport and storage.

3.3 Coupon—sample of steel pipe coated with fusion-bonded epoxy and used for laboratory tests.