External fusion-bonded epoxy coating for steel pipes

This Australian Standard® was prepared by Committee ME-038, Petroleum pipelines. It was approved on behalf of the Council of Standards Australia on 27 JULY 2001.
This Standard was published on 01 January 2002.

The following are represented on Committee ME-038:

- Australasian Corrosion Association
- Australian Institute of Petroleum
- Australian Petroleum Production and Exploration Association
- Australian Pipeline Industry Association
- Bureau of Steel Manufacturers
- Cooperative Research Centre for Materials Welding and Joining
- Department of Labour New Zealand
- Department of Minerals and Energy WA
- Department of Mines and Energy NT
- Department of Natural Resources and Environment Vic.
- Department of Natural Resources and Mines Qld
- Gas Association of New Zealand
- Ministry of Energy and Utilities NSW
- Primary Industries and Resources SA
- Australian Gas Association
- Welding Technology Institute of Australia

Additional interests:

- Cathodic Protection Systems
- Tyco Water Pipelines Research
- Canusa
- Brian Martin and Associates
- Bredero Shaw Australia
- Socotherm

This Standard was issued in draft form for comment as DR 00130.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

Keeping Standards up-to-date

Australian Standards® are living documents that reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued.

Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments that may have been published since the Standard was published.

Detailed information about Australian Standards, drafts, amendments and new projects can be found by visiting **www.standards.org.au**

Standards Australia welcomes suggestions for improvements, and encourages readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at **mail@standards.org.au**, or write to Standards Australia, GPO Box 476, Sydney, NSW 2001.

Australian Standard®

External fusion-bonded epoxy coating for steel pipes

Originated as AS 3862—1991.
Second edition jointly revised and designated AS/NZS 3862:2002.
Reissued and redesignated incorporating Amendment No.1 (September 2017)

Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 4089 8

PREFACE

This Standard was prepared by the joint Standards Australia/Standards New Zealand Committee ME-038, Petroleum Pipelines, at the request of manufacturers and users of fusion-bonded epoxy coating for pipes. Amendment No. 1 to this Standard was prepared by the Australian members of this Joint Standards Australia/Standards New Zealand Committee. As a consequence of Amendment No. 1, which is published as an Australian-only amendment, the designation of this Standard has been changed from AS/NZS 3862:2002 to AS 3862:2002.

A1

This Standard incorporates Amendment No. 1 (September 2017). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to provide purchasers and manufacturers of petroleum pipelines with a Standard for the specification of pipeline coatings using external fusion-bonded epoxy.

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.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to figures and tables are deemed to be requirements of this Standard. All other notes are for information and guidance only.

CONTENTS

Page

STANDARDS AUSTRALIA

Australian Standard
External fusion-bonded epoxy coating for steel pipes

SECTION 1 SCOPE AND GENERAL

1.1 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 inquiry or order are given in Appendix A.

2 Line pipe manufactured in accordance with API 5L may not be suitable for application of FBE coating without requiring additional surface preparation. Surface imperfections in the form of steel slivers, burrs and laminations can cause excessive holidays, resulting in the need for extra surface cleaning, grinding or filing.

3 Line pipe manufactured in accordance with API 5L may require a more stringent straightness specification to allow coating in accordance with this Standard.

4 Consideration should be given to strain ageing when specifying line-pipe for FBE coating. Guidance is given in Clause 3.1.2, Note 3.

Methods for demonstrating compliance with this Standard are given in Appendix B.

1.2 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 pre-treatment of surfaces
1627.4	Part 4: Abrasive blast cleaning
2490	Sampling procedures and charts for inspection by variables for percent nonconforming
3894	Site testing of protective coatings
3894.1	Part 1: Non-conductive coatings—Continuity testing—High voltage (‘brush’) method
AS/NZS	
2243	Safety in laboratories
2243.2	Part 2: Chemical aspects
2990	Quality systems for engineering and construction projects
3894	Site testing of protective coatings
3894.6	Part 6: Determination of residual contaminants