



External fusion-bonded epoxy coating for steel pipes



AS 3862:2020

This Australian Standard® was prepared by ME-038, Petroleum Pipelines. It was approved on behalf of the Council of Standards Australia on 27 March 2020.

This Standard was published on 9 April 2020.

The following are represented on Committee ME-038:

- APGA Research and Standards Committee
- Australasian Corrosion Association Incorporated
- Australian Institute of Petroleum
- Australian Petroleum Production and Exploration Association
- Australian Pipelines and Gas Association Limited
- Department for Energy and Mining (SA)
- Department of Mines, Industry Regulation and Safety (WA)
- Department of Natural Resources, Mines and Energy (QLD)
- Department of Planning and Environment — Division of Energy, Water and Portfolio Strategy
- Department of Primary Industry and Resources
- Energy Networks Australia
- Energy Safe Victoria
- Weld Australia

This Standard was issued in draft form for comment as DR AS 3862:2018.

Keeping Standards up-to-date

Ensure you have the latest versions of our publications and keep up-to-date about Amendments, Rulings, Withdrawals, and new projects by visiting:

www.standards.org.au



External fusion-bonded epoxy coating for steel pipes

Originated as AS 3862—1991.
Second edition jointly revised and designated AS/NZS 3862:2002.
Revised and redesignated as AS 3862:2020.

COPYRIGHT

© Standards Australia Limited 2020

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Cth).

Preface

This Standard was prepared by the Australian members of the joint Standards Australia/Standards New Zealand Committee ME-038, Petroleum Pipelines, to supersede AS/NZS 3862:2002.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

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 only intended to be applied to the external surfaces of pipes.

This Standard does not purport to satisfy all requirements for pipelines. The primary change in this revision is the inclusion of coverage for dual- and multi-layer fusion-bonded epoxy systems to supplement the existing single layer product. Some testing requirements were updated to reflect current practice as set out in other Standards.

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.

Contents

Preface	ii
Section 1 Scope and general	1
1.1 Scope	1
1.2 Normative references	1
1.3 Terms and definitions	2
1.4 Pipe marking	3
Section 2 Material requirements	5
2.1 Fusion-bonded epoxy (FBE) powder	5
2.2 Abrasive materials	5
2.3 Repair materials	5
Section 3 Application	6
3.1 Mill application	6
3.1.1 General	6
3.1.2 Surface preparation	6
3.1.3 Pre-application heating	7
3.1.4 Application of FBE powder	8
3.1.5 Post-curing	10
3.1.6 Cooling	10
3.2 Field application	10
3.2.1 General	10
3.2.2 Protection of mill-applied coating during pipe welding and cutting operations	10
3.2.3 Protection of mill-applied coating during pipe pre-heating for welding	10
3.2.4 Pipe weld profile	10
3.2.5 Procedure trials	10
3.2.6 Surface preparation	11
3.2.7 Pre-application heating	12
3.2.8 Application of FBE powder	12
3.2.9 Post-application heating	13
Section 4 Repairs	14
4.1 Repairs to coatings in the mill	14
4.2 Repairs to field joints and adjacent areas	14
4.3 Repair procedure	14
4.3.1 General	14
4.3.2 Surface preparation	14
4.3.3 Mixing of repair materials	15
4.3.4 Application of repair materials	15
4.3.5 Curing of repair materials	16
Section 5 Storage, handling and transport	17
5.1 Storage and transportation of powder	17
5.1.1 General	17
5.1.2 Packaging	17
5.2 Handling, transport and storage of pipes	17
5.2.1 Handling	17
5.2.2 Storage of uncoated pipes	18
5.2.3 Storage of coated pipes	18
5.2.4 Transport	19
5.3 Health and safety	19
Section 6 Testing and product conformity requirements	20
6.1 Evaluation of product conformity	20
6.2 Coating tests	20
6.2.1 Qualification tests	20

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-