

Field-applied external coatings for steel pipeline systems



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Contents

Technical Committee on Petroleum and Natural Gas Industry Pipeline Systems and Materials 3

Subcommittee on Coatings 9

Preface 12

1 Scope 13

2 Reference publications 14

3 Definitions 16

4 General 17

4.1 Rounding procedure 17

4.2 Requirements for quality 17

4.3 Compliance 17

5 Materials 17

5.1 Product ordering 17

5.1.1 Piping 17

5.1.2 Coating systems 17

5.2 General 18

5.3 Qualification 18

5.4 Packaging 19

6 Coating application 19

6.1 Competency 19

6.1.1 General 19

6.1.2 Applicator qualification 19

6.1.3 Applicator competency 21

6.2 Application practices and equipment 23

6.2.1 General 23

6.2.2 Surface preparation 23

6.2.3 Surface temperatures 23

6.2.4 Applying the coating system 24

6.3 Records 24

7 Inspection and testing 24

7.1 Inspection and test plan 24

7.2 Notice 24

7.3 Access 25

7.4 Inspector competency 25

7.5 Coating quality testing 25

7.5.1 General 25

7.5.2 Physical testing 25

7.5.3 Visual inspection 26

7.5.4 Holiday inspection 26

8	Repairs	27
9	Markings	27
10	Handling and storage of coating materials	27
11	Coating test reports and certificates of application compliance	28
11.1	Test reports	28
11.2	Certificates of application compliance	28
12	Test procedures — Hardness and peel adhesion	28
12.1	Shore D hardness test	28
12.2	Peel adhesion test	28

Annex A (informative)	Holiday inspection of existing coating	48
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Preface

This is the third edition of CSA Z245.30, *Field-applied external coatings for steel pipeline systems*. It supersedes the previous editions published in 2018 and 2014.

This Standard covers the requirements for external coatings for buried or submerged piping as specified by CSA Z662.

The major changes to this edition are the following:

- a) added a definition for Non-editorial change, MQAP;
- b) added requirement for digital surface contact thermometer;
- c) revised requirements for holiday inspection;
- d) revised test procedures for hardness and peel adhesion;
- e) revised manufacturer qualification coating test requirements for all FC systems;
- f) revised applicator qualification and coating quality test requirements for Systems FC1, FC2, FC3, FC4, FC5, and FC7; and
- g) added new Annex [A](#) on holiday inspection of existing coating.

This Standard was prepared by the Subcommittee on Coatings, under the jurisdiction of the Technical Committee on Petroleum and Natural Gas Industry Pipeline Systems and Materials and the Strategic Steering Committee on Petroleum and Natural Gas Industry Systems, and has been formally approved by the Technical Committee.

Notes:

- 1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
- 2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
- 3) *This Standard was developed by consensus, which is defined by CSA Policy governing standardization — Code of good practice for standardization as “substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity”. It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
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 - c) *wording of the proposed change; and*
 - d) *rationale for the change.*

CSA Z245.30:22

Field-applied external coatings for steel pipeline systems

1 Scope

1.1

This Standard covers the qualification, application, inspection, testing, handling, and storage of materials required for coatings applied externally to steel piping in the field or a shop. Coated piping addressed by this Standard is intended primarily for buried or submerged service in oil or gas pipeline systems.

1.2

This Standard covers the following coating systems:

- a) System FC1: liquid-applied epoxy or fusion bond epoxy (FBE) with a glass transition temperature of 115 °C or less;
- b) System FC2: liquid-applied epoxy or FBE with a glass transition temperature greater than 115 °C;
- c) System FC3: liquid-applied epoxy or FBE intended for abrasion service;
- d) System FC4: adhesive and a polymeric backing (e.g., tape, heat shrinkable sleeve);
- e) System FC5: epoxy primer, adhesive, and a polymeric backing (e.g., tape, heat shrinkable sleeve);
- f) System FC6: anti-corrosion coating, if applicable [see Items a), b), d), and e)], polyurethane foam insulation, and a polymeric backing with or without adhesive (e.g., tape, heat shrinkable sleeve); and
- g) System FC7: fibre-reinforced petrolatum, paraffin-filled, or visco-elastic systems.

1.3

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.