

# **Field-applied external coatings for steel pipeline systems**



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# ***Revision History***

## **Z245.30-18, Field-applied external coatings for steel pipeline systems**

<b>Update No. 1 — December 2019</b>	<b>Revision symbol (in margin)</b>
Clauses <a href="#">3</a> , <a href="#">6.2.1</a> , <a href="#">7.1</a> , <a href="#">7.5</a> , <a href="#">7.5.1</a> , <a href="#">7.5.2.2</a> , <a href="#">9.3</a> , and <a href="#">11</a> Tables <a href="#">1</a> , <a href="#">4</a> , <a href="#">6</a> , <a href="#">7</a> , and <a href="#">8</a>	①

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# Contents

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

Subcommittee on Coatings 8

Preface 11

**1 Scope 12**

**2 Reference publications 12**

**3 Definitions 14**

**4 General 15**

4.1 Rounding procedure 15

4.2 Requirements for quality 15

4.3 Compliance 16

**5 Materials 16**

5.1 Product ordering 16

5.1.1 Piping 16

5.1.2 Coating systems 16

5.2 General 16

5.3 Qualification 17

5.4 Packaging 18

**6 Coating application 18**

6.1 Competency 18

6.1.1 General 18

6.1.2 Qualification of applicators 18

6.1.3 Applicator competency 20

6.2 Application practices and equipment 21

6.2.1 General 21

6.2.2 Surface preparation 22

6.2.3 Surface temperatures 22

6.2.4 Applying the coating system 22

6.3 Records 23

**7 Inspection and testing 23**

7.1 Inspection and test plan 23

7.2 Notice 23

7.3 Access 23

7.4 Inspector competency 24

7.5 Coating quality testing 24

7.5.1 General 24

7.5.2 Physical testing 24

7.5.3 Visual inspection 24

7.5.4 Holiday inspection 25

<b>8</b>	<b>Repairs</b>	25
<b>9</b>	<b>Markings</b>	25
<b>10</b>	<b>Handling and storage of coating materials</b>	26
<b>11</b>	<b>Coating test reports and certificates of application compliance</b>	26
11.1	Test reports	26
11.2	Certificates of application compliance	26
<b>12</b>	<b>Test procedures — Hardness and peel adhesion</b>	27
12.1	Shore D hardness test	27
12.2	Peel adhesion test	27

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# Preface

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

The major changes to this edition are the following:

- a) the competency requirements have been extensively revised (Clause 6.1);
- b) the inspection and testing requirements have been revised (Clause 7);
- c) the markings requirements have been revised (Clause 9);
- d) the test procedures have been revised (Clause 12); and
- e) all tables have been extensively revised.

In this 2018 edition, where a major change or addition to the previous edition of this Standard has been made, the clause, table, or figure affected is identified by the symbol © in the margin. Users of this Standard are advised that the change markers in the text are not intended to be all-inclusive and are provided as a convenience only; such markers cannot constitute a comprehensive guide to the revisions made to this Standard. Care must therefore be taken not to rely on the change markers to determine the current requirements of this Standard. As always, users of this Standard must consider the entire Standard.

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.” This 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.*
- 4) *To submit a request for interpretation of this Standard, please send the following information to [inquiries@csagroup.org](mailto:inquiries@csagroup.org) and include “Request for interpretation” in the subject line:*
  - a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
  - b) *provide an explanation of circumstances surrounding the actual field condition; and*
  - c) *where possible, phrase the request in such a way that a specific “yes” or “no” answer will address the issue.*

*Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization and are available on the Current Standards Activities page at [standardsactivities.csa.ca](http://standardsactivities.csa.ca).*

- 5) *This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to [inquiries@csagroup.org](mailto:inquiries@csagroup.org) and include “Proposal for change” in the subject line:*
  - a) *Standard designation (number);*
  - b) *relevant clause, table, and/or figure number;*
  - c) *wording of the proposed change; and*
  - d) *rationale for the change.*

# Z245.30-18

## ***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.

#### Ⓢ **2 Reference publications**

This Standard refers to the following publications, and where such reference is made, it shall be to the editions listed below, unless the user finds it more appropriate to use newer or amended editions of such publications.