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CSA 8.1:15
(reaffirmed 2020)

Elastomeric composite hose and hose couplings for conducting propane and natural gas

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Elastomeric composite hose and hose couplings for conducting propane and natural gas

IGAC

Interprovincial Gas Advisory Council

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Preface

This is the third edition of CSA 8.1, Standard for *Elastomeric composite hose and hose couplings for conducting propane and natural gas*. It supersedes the previous editions published in 1984 and 1986.

This Standard was prepared by the Z21/CSA Joint Technical Advisory Group on Standards for Connectors for Gas Appliances, under the jurisdiction of the Strategic Steering Committee on Standards for Gas Appliances and Related Accessories, and had been formally approved by the CSA Technical Committee and Interprovincial Gas Advisory Council.

Interpretations: The Strategic Steering Committee on Standards for Standards for Gas Appliances and Related Accessories has provided the following direction for the interpretation of standards under its jurisdiction: "The literal text shall be used in judging compliance of products with the safety requirements of this Standard. When the literal text cannot be applied to the product, such as for new materials or construction, and when a relevant committee interpretation has not already been published, CSA's procedures for interpretation shall be followed to determine the intended safety principle."

Notes:

1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
2) *This standard contains SI (Metric) corresponding to the yard/pound quantities, the purpose being to allow the standard to be used in SI (Metric) units. (Standard for use of the International System of Units (SI): The Modern Metric System, IEEE/ASTM SI I0 or ISO 80000-1:2009 Quantities and units– Part 1: General are used as a guide in making metric conversion from yard/pound quantities.) If a value for a measurement and a corresponding value in other units are stated, the first stated value is to be regarded as the requirement. The given corresponding value may be approximate. If a value for a measurement and a corresponding value in other units are both specified as a quoted marking requirement, the first stated unit, or both shall be provided.*
3) *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.*
4) *This publication 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 publication.*
5) *This Standard is subject to periodic review, and suggestions for their improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to **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.*
6) *To submit a request for interpretation of this Standard, please send the following information to **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.

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Elastomeric composite hose and hose couplings for conducting propane and natural gas

1 Scope

1.1
This Standard applies to newly produced Type I, Type II, and Type III hose used for the transfer or conducting of propane and natural gas.

1.2
The hose and hose assemblies covered in this Standard are capable of operation at temperatures between -40°F (-40 °C) and 140°F (60 °C).

1.3
Type I hose refers to hose with a maximum operating pressure of 350 psig (2.4 MPa) and a minimum burst pressure of 1750 psig (12.1 MPa).

1.4
Type II and Type III hose refers to stainless steel braid reinforced hose designed with a maximum operating pressure of 350 psig (2.4 MPa) and a minimum burst pressure as shown in Table 2, Type II and Type III Hose.

1.5
Hose assemblies covered in this Standard are installed in accordance with the appliance and/or the equipment manufacturers instructions. If installation instructions are not present, installation of this product shall be completed in accordance with the *Natural Gas and Propane Installation Code*, CSA B149.1.

Note: *Per the Natural Gas and Propane Installation Code, CSA B149.1, this Standard does not apply to the appliance applications covered by the Standard for Connectors for Gas Appliances, ANSI Z21.24 • CSA 6.10, the Standard for Gas Hose Connectors for Portable Outdoor Gas-Fired Appliances, ANSI Z21.54 • CSA 8.4, the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69 • CSA 6.16, and the Standard for Connectors of Outdoor Gas Appliances and Manufactured Homes, ANSI Z21.75 • CSA 6.27.*

1.6
Clause 3 covers hose couplings of a type to be used, with the hose complying with Clause 4 of this Standard, to fabricate hose assemblies for conducting propane and natural gas.

1.7
Clause 6 covers hose assemblies or types using hose complying with Clause 4 and couplings complying with Clause 5 of this Standard.