



**ANSI LC 7-2009**  
*(reaffirmed 2019)*

## **American National Standard For Pipe Joint Sealing Compounds And Materials**



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# *American National Standard*

*ANSI LC 7-2009*

## ***American National Standard For Pipe Joint Sealing Compounds And Materials***



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## *Preface*

This publication represents a basic standard for acceptable performance of pipe joint compounds and materials. It is the result of years of experience in the manufacture, testing, inspection and research on pipe joint compounds and materials designed for use with natural gas and LP gas piping systems.

Nothing in this standard is to be considered in any way as indicating a measure of quality beyond compliance with the provisions it contains. It is designed to allow compliance of pipe joint compounds and materials, the manufacture and performance of which may exceed the various provisions specified herein. In its preparation, full recognition has been given to possibilities of improvement through ingenuity of product design. As progress takes place, revisions may become necessary. When they are believed desirable, recommendations should be forwarded to CSA America, Inc., 8501 East Pleasant Valley Road, Cleveland, Ohio 44131. A proposal form is provided in the back of this document.

Safe and satisfactory operation of pipe joint compounds and materials depends to a great extent upon its proper use, and it should be applied in accordance with the manufacturers' installation instructions, and local municipal building codes.

Users of this American National Standard are advised that the devices/products/activities within its scope may be subject to regulation at the Federal, state or local level. Users are strongly urged to investigate this possibility through appropriate channels. In the event of a conflict with this standard, the Federal, state or local regulation should be followed.

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## ***History Of The Development Of The Standard For Pipe Joint Compounds and Materials***

(This History is informative and is not part of the standard.)

In 1990, the American Gas Association Laboratories developed AGA Requirement 4-90 for pipe joint compounds and materials, and was used for certification testing of pipe joint compounds and materials by AGA Laboratories, International Approval Services and CSA International. In 2007, interest was indicated to develop a nationally recognized standard. CSA International relinquished its requirements to CSA America, Inc., to undertake the effort to develop a national standard. A working group of interested manufacturers was assembled to develop a standard based on the requirement.

In April 2007, CSA America informed the American National Standards Institute (ANSI) that it was undertaking the project of standards development for pipe joint compounds and materials under its Committee Process. As work progressed, CSA America established a Technical Committee on Pipe Joint Compounds to oversee the development of the standard. The project was assigned the designation LC 7.

During its December 2007 meeting, the working group recommended to its Technical Committee that the draft Standard for Pipe Joint Compounds and Materials be distributed for review and comment.

During its March 2008 meeting, the Technical Committee accepted the recommendation of the working group and adopted the draft standard for distribution for review and comment. The draft standard was subsequently distributed for review and comment during May 2008.

At its August 2008 meeting, the Technical Committee considered comments received during the review and comment period and agreed to editorially revise the draft standard. The Technical Committee then adopted the revised draft standard for submittal to ANSI for approval.

This, the first edition of the Standard for Pipe Joint Compounds and Materials, was approved by the American National Standards Institute on January 16, 2009.

The following identifies the designation and year of the standard.

ANSI LC 7–2009

## ***Pipe Joint Sealing Compound and Materials Technical Committee***

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<b>Edward Angelone</b>	National Grid	
<b>Jorge Atilas</b>	University of Georgia	
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# ***American National Standard For Pipe Joint Sealing Compounds And Materials***

## ***Part I: Construction - Sealing Compounds***

### **1.1 Scope**

#### **1.1.1**

Part I and Part II of this standard cover paste, semi-liquid or liquid type pipe joint sealing compounds which are intended for sealing threaded joints on metal piping having NPT tapered threads.

#### **1.1.2**

A minimum of 3 containers of sealing compound, each not exceeding 16 oz (0.45 kg) in weight, shall be submitted.

#### **1.1.3**

This standard sets forth the minimum capabilities, characteristics and properties which the product must possess at the time of manufacture in order to be considered suitable for use in natural and/or LP-gas piping systems.

#### **1.1.4**

Compounds or materials shall have an operating temperature range of at least 32°F to 125°F (0°C to 51.5°C) to be considered suitable for use in indoor piping systems, and at least -40°F to 125°F (-40°C to 51.5°C) to be considered suitable for indoor and outdoor use. A manufacturer may specify and be tested to temperatures outside of these ranges.

#### **1.1.5**

Compounds or materials shall have an operating pressure of at least 125 psi (861.8 kPa). A manufacturer may specify and be tested to higher pressures.

#### **1.1.6**

Room temperature, as specified herein, shall be considered as 73.4°F ± 3.6°F (23°C ± 2°C).

#### **1.1.7**

Sealing compounds and materials complying with the provisions of this standard shall be considered as having an operating temperature range and maximum operating pressure as specified by the manufacturer.

#### **1.1.8**

If a value for measurement as given in this standard is followed by an equivalent value in other units, the first stated value is to be regarded as the specification.

#### **1.1.9**

All references to psi throughout this standard are to be considered gage pressures unless otherwise specified.