



UL 618

STANDARD FOR SAFETY

Concrete Masonry Units

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UL Standard for Safety for Concrete Masonry Units, UL 618

Ninth Edition, Dated February 27, 1995

Summary of Topics

This revision of ANSI/UL 618 dated June 25, 2020 is being issued to update the title page to reflect the most recent designation as a Reaffirmed American National Standard (ANS). No technical changes have been made.

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The requirements are substantially in accordance with Proposal(s) on this subject dated March 13, 2020.

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UL 618

Standard for Concrete Masonry Units

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Third Edition – July, 1949
Fourth Edition – December, 1953
Fifth Edition – August, 1958
Sixth Edition – November, 1970
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Ninth Edition

February 27, 1995

This ANSI/UL Standard for Safety consists of the Ninth Edition including revisions through June 25, 2020.

The most recent designation of ANSI/UL 618 as a Reaffirmed American National Standard (ANS) occurred on June 12, 2020. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at <https://csds.ul.com>.

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INTRODUCTION

1 Scope

1.1 These requirements cover concrete masonry units classified for use in fire resistive walls in accordance with the conditions of acceptance of the Standard for Fire Tests of Building Construction and Materials, UL 263.

1.2 Concrete masonry units are classified as follows:

- a) 2-hour units are intended for use in fire resistive walls having a rating of 2 hours or less.
- b) 3-hour units are intended for use in fire resistive walls having a rating of 3 hours or less.
- c) 4-hour units are intended for use in fire resistive walls having a rating of 4 hours or less.

1.3 A product that contains features, characteristics, components, materials, or systems new or different from those covered by the requirements in this standard, and that involves a risk of fire, electric shock, or injury to persons shall be evaluated using the appropriate additional component and end-product requirements to determine that the level of safety as originally anticipated by the intent of this Standard is maintained. A product whose features, characteristics, components, materials, or systems conflict with specific requirements or provisions of this standard shall not be judged to comply with this standard. Where appropriate, revision of requirements shall be proposed and adopted in conformance with the methods employed for development, revision, and implementation of this standard.

2 General

2.1 Components

2.1.1 Except as indicated in [2.1.2](#), a component of a product covered by this standard shall comply with the requirements for that component.

2.1.2 A component need not comply with a specific requirement that:

- a) Involves a feature or characteristic not needed in the application of the component in the product covered by this standard, or
- b) Is superseded by a requirement in this standard.

2.1.3 A component shall be used in accordance with its recognized rating established for the intended conditions of use.

2.1.4 Specific components are recognized as being incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions for which they have been recognized.

2.2 Units of measurement

2.2.1 If a value for measurement is followed by a value in other units in parentheses, the second value may be only approximate. The first stated value is the requirement.

2.3 Undated references

2.3.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

CONSTRUCTION

3 General

3.1 A concrete masonry unit shall conform to the following dimensions:

- a) Width (or thickness as laid in a wall) shall be not less than 7-5/8 inches (194 mm).
- b) Height shall be not more than 8 inches (203 mm).
- c) Length shall be not more than 18 inches (457 mm).

3.2 Hollow concrete masonry units shall contain two or three rectangular or oval core holes.

3.3 The face shell thickness in a unit provided with ornamental facing shall be taken at the thinnest face shell dimension.

4 Dimensions – Minimum Face Shell and Web Thickness

Section 4 deleted

4A Dimensions, Cement-Aggregate Proportions and Compressive Strength

4A.1 A concrete masonry unit produced from an aggregate in [Table 4A.1](#) shall have a minimum face shell thickness and a minimum web thickness as shown in [Table 4A.2](#).

Table 4A.1
Thickness, material and strength requirements

Type of aggregate ^a	Manufacturing process	Equivalent thickness ^b in. (mm)			Cement to aggregate ratio maximum	Minimum compressive strength, psi	
		Hourly rating				Average	Individual
		2hr	3hr	4hr			
Expanded clay, shale, slate	Rotary kiln process	3.6 (91)	4.4 (112)	5.1 (136)	1:10.0	1000	800
Expanded clay, shale, slate	Sintered process	4.2 (107)	4.75 (121)	5.4 (137)	1:9.0	1000	800
Expanded slag	Blast furnace	4.1 (104)	4.8 (122)	5.3 (135)	1:8.0	1000	800
Fly-ash	Sintered process	4 (102)	4.7 (119)	5.2 (132)	1:8.5	1000	800
Fly-ash with sand	Sintered process (fly ash)	4.2 (107)	4.9 (124)	5.4 (137)	1:8.5	1000	800
Pumice	—	—	4.1 (104)	4.4 (112)	1:7.0	1000	800
Natural, by-products with or without sand	—	4.2 (107)	5.5 (140)	—	1:7.0	700	600

Table 4A.1 Continued on Next Page