

Warranty and Guarantee

Classic Rock Face Block guarantees its product for Five years from the date of sale. We will replace free of charge, any masonry units found to have defects caused during manufacture or damage incurred by **Classic Rock Face Block** delivery vehicles.

All concrete masonry units manufactured by **Classic Rock Face Block** shall be produced in accordance with the *American Society for Testing and Materials* (ASTM C90) for Load Bearing Concrete Masonry Units and any revisions as thereafter adopted.

The *ASTM* standards for concrete masonry units contain requirements necessary for quality performance. Production conformance requirements include:

- Specified component materials
- Face shell and web thickness
- Finish and appearance criteria
- Moisture content, compressive strength, and water absorption
- Variations from specified standard dimensions

Of the foregoing requirements, the *ASTM* appearance criteria is the most subjective in nature and shall be evaluated as follows:

All units shall be sound and free of any defects that would interfere with the proper placing of the unit or would significantly impair the strength or permanence of the construction. Minor cracks, incidental to the usual methods of manufacturing, or

minor chipping of not larger than one inch in any dimension and not greater than 5% of a shipment resulting from customary methods of handling in shipment and delivery shall be deemed acceptable. Viewing of the units for the presence of objectionable imperfections shall be made from a distance of not closer than 20 feet under diffused lighting. Specifications regarding color and texture shall be based upon an approved sample of not less than four units representing a range of color to determine conformance.

Please note: **Classic Rock Face Block** does **NOT** guarantee the following:

- Defects caused by improper installation
- Masonry units used in exterior walls painted with a Latex paint and not a Concrete Stain.
- Masonry units used in exterior walls without production admixture for resistance to moisture penetration
- Any costs (except for unit replacement or credit) associated with the installation of units which contained obvious defects
- Masonry units for any application or use beyond their inherent structural design characteristics
- The cost of any item except the replacement masonry unit
- Replacement of damaged units caused by others or damage caused during delivery by **non-Classic Rock Face Block** vehicles and personnel

Fire Resistance

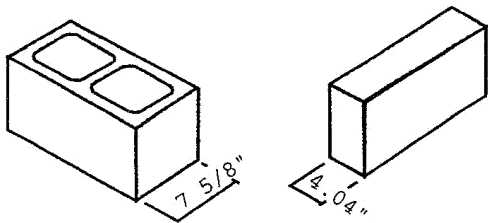
Fire Resistance Rating Calculation:

The following illustration shows you how to determine the rating of an 8" hollow wall which is constructed of 53% solid units manufactured with expanded slag aggregate.

Equivalent thickness:

Equivalent thickness is the solid thickness that would be obtained if the same amount of concrete contained in a hollow unit were recast without core holes.

Equivalent Thickness = $0.53 \times 7\text{-}5/8" = 4.04"$ *If this hollow unit is 53% solid. Its equivalent thickness is 4.04 inches*



Percentage solid is determined in accordance with "Standard Methods of Testing Concrete Masonry Units", ASTM C140 and is based on the average net area or net volume of the unit.

Fire Resistance Rating (example):

Refer to the reprinted tables from the UBC model building code for expanded slag aggregate units. The rating is three (3) hours for walls with an equivalent thickness of at least 4.0".

Note that 4.04 is greater than 4.0"

Percentage solid for **Classic Rock Face Block's** standard size concrete blocks:

4x8x16	73%
6x8x16	54%
8x8x16	53%
10x8x16	51%
12x8x16	49%
14x8x16	47%

Fire Resistance Rating Period for Various Walls and Partitions:

Construction	Minimum Finished Thickness face-to-face (in inches)			
	4 hr.	3 hr.	2 hr.	1 hr.
Expanded slag or pumice	4.7	4.0	3.2	2.1
Expanded clay, shale or slate	5.1	4.4	3.6	2.6
Limestone, cinders or air cooled slag	5.9	5.0	4.0	2.7
Calcareous or siliceous gravel	6.2	5.3	4.2	2.8
<i>Material: Concrete Masonry Units</i>				

The fire resistance of concrete masonry is well established by hundreds of tests. Research has shown that the fire resistance rating of concrete masonry is typically governed by the average temperature rise criteria on the non-fire side of the wall. Research has also shown that the fire resistance rating is a function of the units and the equivalent solid thickness of the unit. In accordance with this research, fire rating can be calculated based on equivalent thickness and the aggregate properties of the unit. The calculated fire resistance rating of concrete masonry is recognized in model building codes.

Fire resistance rating period for concrete masonry units meeting the equivalent thickness required for a two-hour fire resistive rating and having a thickness of not less than 7-5/8", is four hours when cores which are not grouted are filled with:

- Silicone treated perlite loose-fill insulation
- Vermiculite loose-fill insulation, or expanded clay
- Shale or slated lightweight aggregate
- Sand and slag having a maximum particle size of 3/8"
- Core-Fill 500™ - a thermal and acoustical amino-plast masonry foam insulation.

Water Penetration and Efflorescence

Water penetration problems and efflorescence are more likely to occur in masonry units left unprotected or incorrectly installed. Efflorescence, a deposit of soluble salts (usually white) sometimes appears on masonry surfaces. Efflorescence is most obvious in the winter but may be observed throughout the year following heavy rains and changes in temperature.

A combination of circumstances causes efflorescence. Unless corrected, efflorescence may result in the disintegration of masonry. Soluble salts inherent in cements, mortar and aggregate react with chemicals in the atmosphere. Moisture trapped or present inside a masonry wall will, through evaporation or hydrostatic pressure, move to the outside surface.

To Help Alleviate the Problem of Water Penetration and Efflorescence:

Concrete masonry units should be manufactured with an integral water-repellent and have a water-repellent coating post applied in the field.

*In exterior and moisture control applications, **Classic Rock Face Block** will guarantee its products only when units are manufactured with an integral water-repellent and the following recommended techniques are applied:*

Installation of flashing	Wide overhangs if architecturally feasible
Use of vapor barriers	Properly installed coping
Weep holes in exterior wythes	Integral water-repellent masonry
Tightly sealed concave or vee mortar joints	Post applied water-repellent coatings
Caulking of doors and windows to masonry	Covering unfinished wall

How to Remove Efflorescence:

The removal of most types of efflorescence is relatively easy, as most efflorescing salts are water soluble and many will disappear with normal weathering. Before removing efflorescence, determine the source of the problem and take steps to correct it. Doing so will help prevent water penetration and further efflorescence. In general, most efflorescence can be removed by dry-brushing followed by flushing with clean water. If this is not satisfactory, wash the surface with a diluted solution of approved acid (5 to 10 percent).

For Architectural or integrally colored masonry, please contact your Classic Rock Face Block representative.

IMPORTANT – PLEASE READ We have tried to make this catalog comprehensive and factual. All product descriptions (including depictions, specifications, dimensions, and measurements) are based on available information at the time of publication. Although such descriptions are believed correct, errors and changes can occur and complete accuracy cannot be guaranteed. CLASSIC ROCK FACE BLOCK may make changes at anytime to descriptions, and may change or discontinue any of the items depicted in this catalog, without notice and without incurring any obligation.

Specification Guidelines

Specification Guidelines for Concrete Masonry

- Concrete masonry units shall be produced to conform to ASTM C90 (Standard Specification for Load Bearing Concrete Masonry Units - hollow or solid and any revisions as thereafter adopted) as manufactured by **Classic Rock Face Block**.
- Standard concrete blocks shall have a flat/smooth surface as provided by molds.
- Architectural or decorative units shall have a textured face, or end, as specified by the architect.
- An integral liquid polymeric admixture shall be added to the concrete mix for architectural concrete masonry units to be used in exterior applications. A compatible water repellent admixture shall be added to the mortar. Water-repellent admixtures are added to achieve a class E water permeability rating per ASTM E514-74 for both the concrete block and mortar.
- Block producer shall be a member of the *National Concrete Masonry Association* and *Indiana Concrete Masonry Association*.
- Integrally colored units shall have a color pigment added to the concrete during the mixing process.
- Fire resistive units with a specific fire resistance classification will be furnished where indicated on architect's or engineer's drawings. Fire resistance classification will be based on the equivalent thickness method as published in the *National Concrete Masonry Association's* TEK 7-1 (Fire Resistance Rating of Concrete Masonry Assemblies).
- Typical stretcher units shall have nominal face dimensions of 8" high x 16" long and thickness as required by the architect/engineer drawings. Specifications for other sizes and shapes should be furnished to meet conditions required or indicated for lintels, corners, jambs, control joints, bond beam, or any other special conditions.
- Cold weather construction shall conform to the "*Recommended Practices & Guide Specifications for Cold Weather Masonry Construction*" developed by the *International Masonry Industry All Weather Council*. Any wall unfinished at the end of the work day shall be draped with a non-absorbing cover extending at least 2 feet (and weighted) on both sides of the wall.