

Matt Perreault
Best Block
2088 FM 949
Alleyton, TX 78935

July 14, 2021

Enclosed the fire resistance test report conducted in accordance with ACI/TMS 216.1-14, *Code Requirements for Determining Fire Resistance of Concrete and Masonry Construction Assemblies*, that we performed at your request on the following concrete masonry unit that you supplied to the NCMA Research and Development Laboratory:

NCMA Project Number: 21-314-1B
4x8x16 in. CMU
ID: Regular Standard Weight No. 1

Aggregate Information as Reported by the Producer:

Aggregate Description	Aggregate Batch Weight (lb)	Aggregate Density (lb/ft ³)	Aggregate Batch Volume (ft ³)	Aggregate Batch Volume (%)
Expanded Clay	900	43	20.9	33.8%
Calcareous Gravel	2100	100	21.0	33.9%
Sand	2000	100	20.0	32.3%
Totals	5000		62	100%

Unit Properties

Average Width (in.): 3.62	Unit Gross Volume (ft ³) = 0.247
Average Height (in.): 7.56	Unit Net Volume (ft ³) = 0.183
Average Length (in.): 15.57	Unit Percent Solid = 74.3%
Minimum Face Shell Thickness (in.): 1.00	Unit Equivalent Thickness (in.) = 2.69
Minimum Web Thickness (in.): 1.04	Unit Density (lb/ft ³) = 124.1
Normalized Web Area (in.): 35.31	



Calculated Fire Resistance

Fire Resistance Calculated in Accordance with ACI/TMS 216.1-14 = 1 Hours

Please note that the contents of this report are not to be reproduced, except in full, without the written approval of the NCMA Research and Development Laboratory. We take pride in meeting your product evaluation requirements and look forward to continuing to service your testing needs for years to come. Thank you for choosing NCMA's Research and Development Laboratory. Please feel free to contact me directly with any comments or questions at: 571-224-0924 or tjones@ncma.org.

Sincerely,

Timothy Jones
Manager, Research and Development Laboratory

Fire Resistance Rating

Certificate Number: 21-314-1B

Certificate Validation Period
July 14, 2021 through July 14, 2022

Best Block

certifies that concrete masonry units in the shipment are representative of those evaluated by the National Concrete Masonry Association for fire resistance in accordance with ACI/TMS 216.1-14, *Code Requirements for Determining Fire Resistance of Concrete and Masonry Construction Assemblies*.

The concrete masonry units submitted by the manufacturer listed have been evaluated by the National Concrete Masonry Association Research and Development Laboratory for fire resistance in accordance with ACI/TMS 216.1-14, *Code Requirements for Determining Fire Resistance of Concrete and Masonry Construction Assemblies*, based upon information provided by the producer regarding the type(s) of aggregate(s) and their properties and proportions used to manufacture the concrete masonry units.

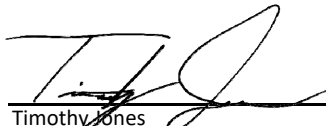
Concrete masonry assemblies constructed in accordance with the governing building code using units representative of those submitted for evaluation has the following fire resistance rating:

Fire Resistance Rating = 1 Hours


The above fire resistance rating can be used to demonstrate compliance with the 2015 and 2018 editions of the International Building Code.

Manufacturer: Best Block
Plant: Alleyton, TX 78935
Unit Description: 4x8x16 in. CMU
ID: Regular Standard Weight No. 1

Equivalent Thickness: 2.69 inches
Aggregate Types: Expanded Clay
Calcareous Gravel
Sand



Timothy Jones
Manager, Research and Development Laboratory



Jason Thompson
Vice President of Engineering



RESEARCH & DEVELOPMENT

National
Concrete Masonry
Association
13750 Sunrise Valley Drive
Herndon, VA 20171-4662

O 703.713.1900
F 703.713.1910
ncma.org/lab

Shipment/Project Information: _____

Manufacturer Representative: _____

Signature: _____

Title: _____

Date: _____