

# BOWSER-MORNER, INC.

Delivery Address: 4518 Taylorsville Road Dayton, Ohio 45424 Mailing Address: P.O. Box 51 Dayton, Ohio 45401  
AASHTO/ISO 17025 Accredited

## REPORT ON TESTS OF CONCRETE MASONRY UNITS

Report To: Tri-County Block & Brick, Inc.  
Attn: Ed Kuhlman  
1628 Airport Highway  
Swanton, OH 43558

Report Date: 02/28/12  
Job No.: 157263  
Report No.: 707722  
Submitted: 02/17/12

Specs: ASTM C 90

Test Method: ASTM C 140

Unit: 8" Normal Weight Loadbearing Concrete Masonry Unit - Hollow Core  
12x8x16 Hollow Split Face Normal Weight

| COMPRESSIVE STRENGTH                                                                                                   |         |         |                                         |         | SPECIFICATIONS |                   |
|------------------------------------------------------------------------------------------------------------------------|---------|---------|-----------------------------------------|---------|----------------|-------------------|
| Specimen No.                                                                                                           | 4D      | 4E      | 4F                                      | Average | Individual     | Average           |
| Length in Inches                                                                                                       | 15.60   | 15.60   | 15.60                                   |         |                |                   |
| Width in Inches                                                                                                        | 11.92   | 11.91   | 11.85                                   | 11.89   |                |                   |
| Height in Inches                                                                                                       | 7.66    | 7.66    | 7.66                                    |         |                |                   |
| Equiv. Web Thickness, in/ft.                                                                                           | 2.98    | 3.05    | 3.03                                    | 3.02    |                | 2 1/4 (2.25) Min. |
| Min. OW Thickness, in.                                                                                                 | 1.56    | 1.53    | 1.54                                    | 1.54    |                | 1 1/4 (1.25) Min. |
| Min. Web Thickness, in.                                                                                                | 1.27    | 1.31    | 1.32                                    | 1.30    |                | 1 Min.            |
| Gross Area, Sq. In.                                                                                                    | 186.0   | 185.8   | 184.9                                   |         |                |                   |
| No. of Cells                                                                                                           | 2       | 2       | 2                                       |         |                |                   |
| Total Load in lbs.                                                                                                     | 322,880 | 252,400 | 253,240                                 |         |                |                   |
| Gross Unit Load, psi                                                                                                   | 1740    | 1360    | 1370                                    | 1490    |                |                   |
| Gross Volume, Cu. Ft.                                                                                                  | 0.8243  | 0.8236  | 0.8195                                  | 0.8225  |                |                   |
| Net Unit Load, psi                                                                                                     | 3520    | 2750    | 2760                                    | 3010    | 1700 Min.      | 1900 Min.         |
| ABSORPTION                                                                                                             |         |         |                                         |         | SPECIFICATIONS |                   |
| Specimen No.                                                                                                           | 4A      | 4B      | 4C                                      | Average | Individual     | Average           |
| Wt. As Received, lbs.                                                                                                  | 52.50   | 53.75   | 52.80                                   |         |                |                   |
| Suspended Wt., lbs.                                                                                                    | 30.50   | 31.00   | 30.85                                   |         |                |                   |
| Wet Wt., lbs.                                                                                                          | 65.85   | 56.30   | 56.40                                   |         |                |                   |
| Dry Wt., lbs.                                                                                                          | 51.90   | 53.05   | 52.10                                   |         |                |                   |
| Absorption, lbs./Cu.Ft.                                                                                                | 9.7     | 8.0     | 10.5                                    | 9.4     | 15 Max.        | 13 Max.           |
| Absorption, % of Dry Wt.                                                                                               | 7.6     | 6.1     | 8.3                                     | 7.3     |                |                   |
| % Moisture, % Absorption                                                                                               | 15.2    | 21.5    | 16.3                                    |         |                |                   |
| Net Vol., Cu. Ft.                                                                                                      | 0.406   | 0.405   | 0.409                                   | 0.407   |                |                   |
| Net Area, Sq. In.                                                                                                      | 91.6    | 91.5    | 92.4                                    | 91.8    |                |                   |
| Dry Den, lbs./Cu.Ft.                                                                                                   | 127.8   | 130.8   | 127.2                                   | 128.6   |                |                   |
| FIRE RATING                                                                                                            |         |         |                                         |         |                |                   |
| 12.5% Limestone Screening, 12.5% #9 Limestone, 75% Limestone Manufactured Sand                                         |         |         |                                         |         |                |                   |
| Percent Solids:                                                                                                        | 49.5    | %       | Ohio Building Code (OBC) Table 721.3.2. |         |                |                   |
| Equivalent Thickness:                                                                                                  | 5.9     | inches  | Fire Resistance Rating:                 |         | 4 hrs.         |                   |
| LINEAR SHRINKAGE                                                                                                       |         |         |                                         |         |                |                   |
| Linear Shrinkage @ Equilibrium, %: Testing Not Requested - a complete ASTM C90 specification requires linear shrinkage |         |         |                                         |         |                |                   |

Should you have any questions, or if we may be of further service, please contact me at (937) 236-8805, ext. 235.

JWF/bk/lfg  
707722

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1-ed@tricityblock.com

  
James W. Fletcher, Vice President  
Director of Laboratory Services  
Construction Services Division  
CMTT# 0112

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