

## Product Line

| Product              | Thickness   | Height                   | Length            | Strength Classes            |
|----------------------|---|--------------------------|-------------------|-----------------------------|
| Wall Panel           | 6", 8", 10" & 12"                                     | 24"                      | Up to 236"        | AAC-4                       |
|                      | 150 mm, 200 mm, 250 mm & 300 mm                       | 610 mm                   | Up to 5995 mm     | AAC-6                       |
| Roof and Floor Panel | 4", 6", 8", 10" & 12"                                 | 24"                      | Up to 236"        | AAC-4                       |
|                      | 100 mm, 150 mm, 200 mm, 250 mm & 300 mm               | 610 mm                   | Up to 5995 mm     | AAC-6                       |
| Block                | 2", 3", 4", 6", 8", 10" & 12"                         | 8" & 12"                 | 24"               | AAC-2<br>AAC-3 <sup>1</sup> |
|                      | 50 mm, 75 mm, 100 mm, 150 mm, 200 mm, 250 mm & 300 mm | 200 mm & 300 mm          | 610 mm            | AAC-4<br>AAC-6              |
| Shaft Block          | 3" & 4"   | 24"                      | 24"               | AAC-2<br>AAC-3 <sup>1</sup> |
|                      | 75 mm & 100 mm  | 610 mm                   | 610 mm            | AAC-4                       |
| Jumbo Block          | 6", 8", 10" & 12"                                     | 24"                      | 40" & 48"         | AAC-2<br>AAC-3 <sup>1</sup> |
|                      | 150 mm, 200 mm, 250 mm & 300 mm                       | 610 mm                   | 1000 mm & 1200 mm | AAC-4<br>AAC-6              |
| Mini-Jumbo Block     | 6", 8", 10" & 12"                                     | 24"                      | 24"               | AAC-2<br>AAC-3 <sup>1</sup> |
|                      | 150 mm, 200 mm, 250 mm & 300 mm                       | 610 mm                   | 610 mm            | AAC-4<br>AAC-6              |
| Board                | 2", 3" & 4"   | 24"                      | 112" & 120"       | AAC-4                       |
|                      | 50 mm, 75 mm & 100 mm                                 | 610 mm                   | 2845 mm & 3050 mm |                             |
| Lintel               | 6", 8", 10" & 12"                                     | 12", 16" & 24"           | Up to 120"        | AAC-4<br>AAC-6              |
|                      | 150 mm, 200 mm, 250 mm & 300 mm                       | 305 mm, 406 mm, & 610 mm | Up to 3050 mm     |                             |
| U-Block              | 8", 10", 12"  | 8"                       | 24"               | AAC-2<br>AAC-3 <sup>1</sup> |
|                      | 200 mm, 250 mm & 300 mm                               | 200 mm                   | 610 mm            | AAC-4<br>AAC-6              |

<sup>1</sup>-AAC-3 strength class as referenced in ESR-1371. Report available @ [www.icc-es.org](http://www.icc-es.org).

## Density

|                         | Dry Density            |                      | Design Density         |                      | Shipping Density    |                      |
|-------------------------|------------------------|----------------------|------------------------|----------------------|---------------------|----------------------|
|                         | [lbs/ft <sup>3</sup> ] | [kg/m <sup>3</sup> ] | [lbs/ft <sup>3</sup> ] | [kg/m <sup>3</sup> ] | lbs/ft <sup>3</sup> | [kg/m <sup>3</sup> ] |
| AAC-2/400               | 25                     | 400                  | 27                     | 440                  | 33                  | 540                  |
| AAC-2/500               | 31                     | 500                  | 36                     | 570                  | 42                  | 670                  |
| AAC-3 <sup>1</sup> /500 | 31                     | 500                  | 36                     | 570                  | 42                  | 670                  |
| AAC-4/500               | 31                     | 500                  | 36                     | 570                  | 42                  | 670                  |
| AAC-4/600               | 37                     | 600                  | 44                     | 710                  | 50                  | 800                  |
| AAC-6/700               | 44                     | 700                  | 52                     | 840                  | 58                  | 940                  |

<sup>1</sup>-AAC-3 strength class as referenced in ESR-1371. Report available @ [www.icc-es.org](http://www.icc-es.org).

## Thermal Conductivity and Resistance

|           | Thermal Conductivity (k)           | Thermal Resistance (R)              |
|-----------|------------------------------------|-------------------------------------|
|           | [BTU / hr-ft <sup>2</sup> -°F)/in] | [(hr-ft <sup>2</sup> -°F) /BTU /in] |
| AAC-2/400 | 0.70                               | 1.43                                |
| AAC-2/500 | 0.80                               | 1.25                                |
| AAC-4/500 | 0.80                               | 1.25                                |
| AAC-4/600 | 0.97                               | 1.03                                |
| AAC-6/700 | 1.25                               | 0.80                                |

## Strength Classes

|       | Minimum |
|-------|---------|
| AAC-2 | 290 psi |
| AAC-4 | 580 psi |
| AAC-6 | 870 psi |

## Static R-Value

Static R-Value = Thickness / k-value

### Without Surface Air Film

|           | 3in<br>(75mm) | 4in<br>(100mm) | 6in<br>(150mm) | 8in<br>(200mm) | 10in<br>(250mm) | 12in<br>(300mm) |
|-----------|---------------|----------------|----------------|----------------|-----------------|-----------------|
| AAC-2/400 | 4.29          | 5.71           | 8.57           | 11.43          | 14.29           | 17.14           |
| AAC-2/500 | 3.75          | 5.00           | 7.50           | 10.00          | 12.50           | 15.00           |
| AAC-4/500 | 3.75          | 5.00           | 7.50           | 10.00          | 12.50           | 15.00           |
| AAC-4/600 | 3.09          | 4.12           | 6.19           | 8.25           | 10.31           | 12.37           |
| AAC-6/700 | 2.40          | 3.20           | 4.80           | 6.40           | 8.00            | 9.60            |

### With Surface Air Film

|           | 3in<br>(75mm) | 4in<br>(100mm) | 6in<br>(150mm) | 8in<br>(200mm) | 10in<br>(250mm) | 12in<br>(300mm) |
|-----------|---------------|----------------|----------------|----------------|-----------------|-----------------|
| AAC-2/400 | 5.14          | 6.56           | 9.42           | 12.28          | 15.14           | 17.99           |
| AAC-2/500 | 4.60          | 5.85           | 8.35           | 10.85          | 13.35           | 15.85           |
| AAC-4/500 | 4.60          | 5.85           | 8.35           | 10.85          | 13.35           | 15.85           |
| AAC-4/600 | 3.94          | 4.97           | 7.04           | 9.10           | 11.16           | 13.22           |
| ACC-6/700 | 3.25          | 4.05           | 5.65           | 7.25           | 8.85            | 10.45           |

## DBMS and R<sub>equiv</sub> for AAC-2

Strength Class = AAC-2

|                 | 8in (200mm) |      |                    | 10in (250mm) |      |                    |
|-----------------|-------------|------|--------------------|--------------|------|--------------------|
|                 | R           | DBMS | R <sub>equiv</sub> | R            | DBMS | R <sub>equiv</sub> |
| Phoenix         | 10.85       | 2.48 | 26.91              | 13.35        | 2.51 | 33.51              |
| Flagstaff       | 10.85       | 1.99 | 21.59              | 13.35        | 1.99 | 26.57              |
| Los Angeles     | 10.85       | 1.54 | 16.71              | 13.35        | 1.57 | 20.96              |
| Sacramento      | 10.85       | 2.44 | 26.47              | 13.35        | 2.44 | 32.57              |
| San Diego       | 10.85       | 1.42 | 15.41              | 13.35        | 1.44 | 19.22              |
| San Francisco   | 10.85       | 1.78 | 19.31              | 13.35        | 1.79 | 23.90              |
| Denver          | 10.85       | 1.9  | 20.62              | 13.35        | 1.92 | 25.63              |
| Miami           | 10.85       | 1.73 | 18.77              | 13.35        | 1.76 | 23.50              |
| Atlanta         | 10.85       | 1.93 | 20.94              | 13.35        | 1.94 | 25.90              |
| Minneapolis     | 10.85       | 1.48 | 16.06              | 13.35        | 1.5  | 20.03              |
| Albuquerque     | 10.85       | 2.06 | 22.35              | 13.35        | 2.09 | 27.90              |
| Santa Fe        | 10.85       | 2.14 | 23.22              | 13.35        | 2.17 | 28.97              |
| Las Vegas       | 10.85       | 2.46 | 26.69              | 13.35        | 2.49 | 33.24              |
| Reno            | 10.85       | 2.05 | 22.24              | 13.35        | 2.06 | 27.50              |
| Eugene          | 10.85       | 2.14 | 23.22              | 13.35        | 2.16 | 28.84              |
| El Paso         | 10.85       | 2.31 | 25.06              | 13.35        | 2.34 | 31.24              |
| Salt Lake City  | 10.85       | 2.11 | 22.89              | 13.35        | 2.11 | 28.17              |
| Washington D.C. | 10.85       | 1.7  | 18.45              | 13.35        | 1.72 | 22.96              |
| Seattle         | 10.85       | 1.39 | 15.08              | 13.35        | 1.41 | 18.82              |
| Spokane         | 10.85       | 1.85 | 20.07              | 13.35        | 1.86 | 24.83              |

R = Static R-Value,

DBMS = Dynamic Benefit of Massive Systems

R<sub>equiv</sub> = R x DBMS

Source: Research Series Report No. 08 - A Comparison of Innovative Exterior Wall Construction Techniques prepared by AZ Path dated July 2002 and ESR-1371.

## DBMS and R<sub>equiv</sub> for AAC-4, Strength Class = AAC-4

|                 | 8in (200mm) |      |                    | 10in (250mm) |      |                    |
|-----------------|-------------|------|--------------------|--------------|------|--------------------|
|                 | R           | DBMS | R <sub>equiv</sub> | R            | DBMS | R <sub>equiv</sub> |
| Phoenix         | 9.10        | 2.48 | 22.56              | 11.16        | 2.51 | 28.01              |
| Flagstaff       | 9.10        | 1.99 | 18.10              | 11.16        | 1.99 | 22.21              |
| Los Angeles     | 9.10        | 1.54 | 14.01              | 11.16        | 1.57 | 17.52              |
| Sacramento      | 9.10        | 2.44 | 22.20              | 11.16        | 2.44 | 27.23              |
| San Diego       | 9.10        | 1.42 | 12.92              | 11.16        | 1.44 | 16.07              |
| San Francisco   | 9.10        | 1.78 | 16.19              | 11.16        | 1.79 | 19.98              |
| Denver          | 9.10        | 1.9  | 17.29              | 11.16        | 1.92 | 21.43              |
| Miami           | 9.10        | 1.73 | 15.74              | 11.16        | 1.76 | 19.64              |
| Atlanta         | 9.10        | 1.93 | 17.56              | 11.16        | 1.94 | 21.65              |
| Minneapolis     | 9.10        | 1.48 | 13.46              | 11.16        | 1.5  | 16.74              |
| Albuquerque     | 9.10        | 2.06 | 18.74              | 11.16        | 2.09 | 23.32              |
| Santa Fe        | 9.10        | 2.14 | 19.47              | 11.16        | 2.17 | 24.22              |
| Las Vegas       | 9.10        | 2.46 | 22.38              | 11.16        | 2.49 | 27.79              |
| Reno            | 9.10        | 2.05 | 18.65              | 11.16        | 2.06 | 22.99              |
| Eugene          | 9.10        | 2.14 | 19.47              | 11.16        | 2.16 | 24.10              |
| El Paso         | 9.10        | 2.31 | 21.02              | 11.16        | 2.34 | 26.11              |
| Salt Lake City  | 9.10        | 2.11 | 19.20              | 11.16        | 2.11 | 23.55              |
| Washington D.C. | 9.10        | 1.7  | 15.47              | 11.16        | 1.72 | 19.19              |
| Seattle         | 9.10        | 1.39 | 12.65              | 11.16        | 1.41 | 15.73              |
| Spokane         | 9.10        | 1.85 | 16.83              | 11.16        | 1.86 | 20.76              |

# DBMS and R<sub>equiv</sub> for AAC-6

Strength Class = AAC-6



|                 | 8in (200mm) |      |                    | 10in (250mm) |      |                    |
|-----------------|-------------|------|--------------------|--------------|------|--------------------|
|                 | R           | DBMS | R <sub>equiv</sub> | R            | DBMS | R <sub>equiv</sub> |
| Phoenix         | 7.25        | 2.48 | 17.98              | 8.85         | 2.51 | 22.21              |
| Flagstaff       | 7.25        | 1.99 | 14.43              | 8.85         | 1.99 | 17.61              |
| Los Angeles     | 7.25        | 1.54 | 11.17              | 8.85         | 1.57 | 13.89              |
| Sacramento      | 7.25        | 2.44 | 17.69              | 8.85         | 2.44 | 21.59              |
| San Diego       | 7.25        | 1.42 | 10.30              | 8.85         | 1.44 | 12.74              |
| San Francisco   | 7.25        | 1.78 | 12.91              | 8.85         | 1.79 | 15.84              |
| Denver          | 7.25        | 1.9  | 13.78              | 8.85         | 1.92 | 16.99              |
| Miami           | 7.25        | 1.73 | 12.54              | 8.85         | 1.76 | 15.58              |
| Atlanta         | 7.25        | 1.93 | 13.99              | 8.85         | 1.94 | 17.17              |
| Minneapolis     | 7.25        | 1.48 | 10.73              | 8.85         | 1.5  | 13.28              |
| Albuquerque     | 7.25        | 2.06 | 14.94              | 8.85         | 2.09 | 18.50              |
| Santa Fe        | 7.25        | 2.14 | 15.52              | 8.85         | 2.17 | 19.20              |
| Las Vegas       | 7.25        | 2.46 | 17.84              | 8.85         | 2.49 | 22.04              |
| Reno            | 7.25        | 2.05 | 14.86              | 8.85         | 2.06 | 18.23              |
| Eugene          | 7.25        | 2.14 | 15.52              | 8.85         | 2.16 | 19.12              |
| El Paso         | 7.25        | 2.31 | 16.75              | 8.85         | 2.34 | 20.71              |
| Salt Lake City  | 7.25        | 2.11 | 15.30              | 8.85         | 2.11 | 18.67              |
| Washington D.C. | 7.25        | 1.7  | 12.33              | 8.85         | 1.72 | 15.22              |
| Seattle         | 7.25        | 1.39 | 10.08              | 8.85         | 1.41 | 12.48              |
| Spokane         | 7.25        | 1.85 | 13.41              | 8.85         | 1.86 | 16.46              |

R = Static R-Value,  
 DBMS = Dynamic Benefit of  
 Massive Systems  
 R<sub>equiv</sub> = R x DBMS

Source: Research Series Report  
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 Exterior Wall Construction  
 Techniques prepared by AZ  
 Path dated July 2002 and ESR-1371.