

# Rigiboard™ ONE R4/in

## Physical Properties Data Sheet

**PowerWool™ RigiBoard™ ONE** is a continuous, non-structural and non-combustible rigid mineral wool insulation sheathing board designed to increase the effective thermal value of exterior walls. **Rigiboard™ ONE** is an ideal choice for heavy-duty claddings and structures.



Approved for use in  
Canada and the USA

| CHARACTERISTIC                             | RESULT   | TEST STANDARD                      |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
|--|--|------------------------------------|-------|--------|--------|--------|--------|--------|-----|-----|------|------|------|------|------|------|------|------|------|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|------|------|------|------|------|------|------|------|----|------|------|------|------|------|------|------|------|------------------------------|
| Density                                    | 9 lbs/ft <sup>3</sup> (140 kg/m <sup>3</sup> )   | CAN/ULC S702.1                     |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Compression Resistance                     | 689 psf (33 kPa) @ 10% Deformation   | ASTM C165-07 (2017)                |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Thermal Resistance                         | R value/inch @ 75°F = 4 ft <sup>2</sup> F/Btu (min)*<br>RSI value/25.4 mm @ 24°C = 0.70 m <sup>2</sup> K/W (min)   | ASTM C518-17<br>ASTM C518-17       |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Maximum Service Temperature                | Hot Surface Performance: 1200°F (650°C)  | ASTM C411                          |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Non-Combustibility                         | Pass   | CAN/ULC S114-05 (2018)             |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Surface Burning Characteristics            | Flame Spread Classification = 0 (Pass)<br>Smoke Developed = 0 (Pass)   | CAN/ULC S102-16<br>CAN/ULC S102-16 |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Smolder Resistance                         | Mean Mass Loss, % = 0 (Pass)<br>Mass Loss Each Specimen, % = 0 (Pass)  | CAN/ULC S129-15                    |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Water Vapour Permeance, Desiccant Method   | 2029 ng/Pa.s.m <sup>2</sup> (35.6 perm)<br>(at 38mm (1.5") thickness)  | ASTM E96M-16                       |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Water Vapor Sorption                       | 0.05%  | ASTM C1104-13A                     |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Water Absorption                           | 0.11% by volume / 0.88% by weight  | ASTM C209-14                       |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Fungi Resistance                           | Pass   | ASTM C1338-08                      |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Corrosiveness                              | Pass   | ASTM C665-17                       |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Dimensional Stability/<br>Linear Shrinkage | Pass   | ASTM C356-17                       |       |        |        |        |        |        |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| Acoustic Performance                       | <table border="1"> <thead> <tr> <th></th> <th>125Hz</th> <th>250Hz</th> <th>500Hz</th> <th>1000Hz</th> <th>2000Hz</th> <th>4000Hz</th> <th>NRC</th> <th>SAA</th> </tr> </thead> <tbody> <tr> <td>1.5"</td> <td>0.17</td> <td>0.71</td> <td>0.98</td> <td>0.98</td> <td>0.94</td> <td>0.98</td> <td>0.90</td> <td>0.90</td> </tr> <tr> <td>2"</td> <td>0.36</td> <td>0.88</td> <td>0.95</td> <td>0.94</td> <td>0.94</td> <td>0.99</td> <td>0.95</td> <td>0.92</td> </tr> <tr> <td>2.5"</td> <td>0.47</td> <td>0.98</td> <td>1.04</td> <td>1.01</td> <td>0.99</td> <td>1.05</td> <td>1.00</td> <td>1.00</td> </tr> <tr> <td>3"</td> <td>0.70</td> <td>0.97</td> <td>0.98</td> <td>0.99</td> <td>0.99</td> <td>1.07</td> <td>1.00</td> <td>0.99</td> </tr> <tr> <td>4"</td> <td>0.90</td> <td>0.86</td> <td>0.96</td> <td>0.97</td> <td>0.98</td> <td>1.07</td> <td>0.95</td> <td>0.95</td> </tr> </tbody> </table> |                                    | 125Hz | 250Hz  | 500Hz  | 1000Hz | 2000Hz | 4000Hz | NRC | SAA | 1.5" | 0.17 | 0.71 | 0.98 | 0.98 | 0.94 | 0.98 | 0.90 | 0.90 | 2" | 0.36 | 0.88 | 0.95 | 0.94 | 0.94 | 0.99 | 0.95 | 0.92 | 2.5" | 0.47 | 0.98 | 1.04 | 1.01 | 0.99 | 1.05 | 1.00 | 1.00 | 3" | 0.70 | 0.97 | 0.98 | 0.99 | 0.99 | 1.07 | 1.00 | 0.99 | 4" | 0.90 | 0.86 | 0.96 | 0.97 | 0.98 | 1.07 | 0.95 | 0.95 | ASTM C423-23<br>ASTM E795-23 |
|  | 125Hz  | 250Hz                              | 500Hz | 1000Hz | 2000Hz | 4000Hz | NRC    | SAA    |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| 1.5"                                       | 0.17   | 0.71                               | 0.98  | 0.98   | 0.94   | 0.98   | 0.90   | 0.90   |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| 2"   | 0.36   | 0.88                               | 0.95  | 0.94   | 0.94   | 0.99   | 0.95   | 0.92   |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| 2.5"                                       | 0.47   | 0.98                               | 1.04  | 1.01   | 0.99   | 1.05   | 1.00   | 1.00   |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| 3"   | 0.70   | 0.97                               | 0.98  | 0.99   | 0.99   | 1.07   | 1.00   | 0.99   |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |
| 4"   | 0.90   | 0.86                               | 0.96  | 0.97   | 0.98   | 1.07   | 0.95   | 0.95   |     |     |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |    |      |      |      |      |      |      |      |      |                              |

| EVALUATED TO:                              |   |
|--|---|
| CAN/ULC S702.1<br>Type 1 Compliant         | ASTM C612<br>Type IVB Compliant         |
| CAN/ULC S102<br>FSI: 0<br>SDI: 0           | ASTM E84 (UL 723)<br>FSI: 0<br>SDI: 0   |
| CAN/ULC S114<br>Classified Non-Combustible | ASTM E136<br>Classified Non-Combustible |
| ASTM C1338                                 | Does not support fungi growth.          |



FILE: B1124

Approved per  
CCMC Listing #14061-L  
& CAN/ULC S702.1



! For exterior use only. Not for interior walls.

PowerWool Insulation Inc. has no control over the workmanship, design of installation, accessories used with or conditions of application, and as such we do not warranty the performance or results of any installation containing PowerWool Insulation Inc.'s products.

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