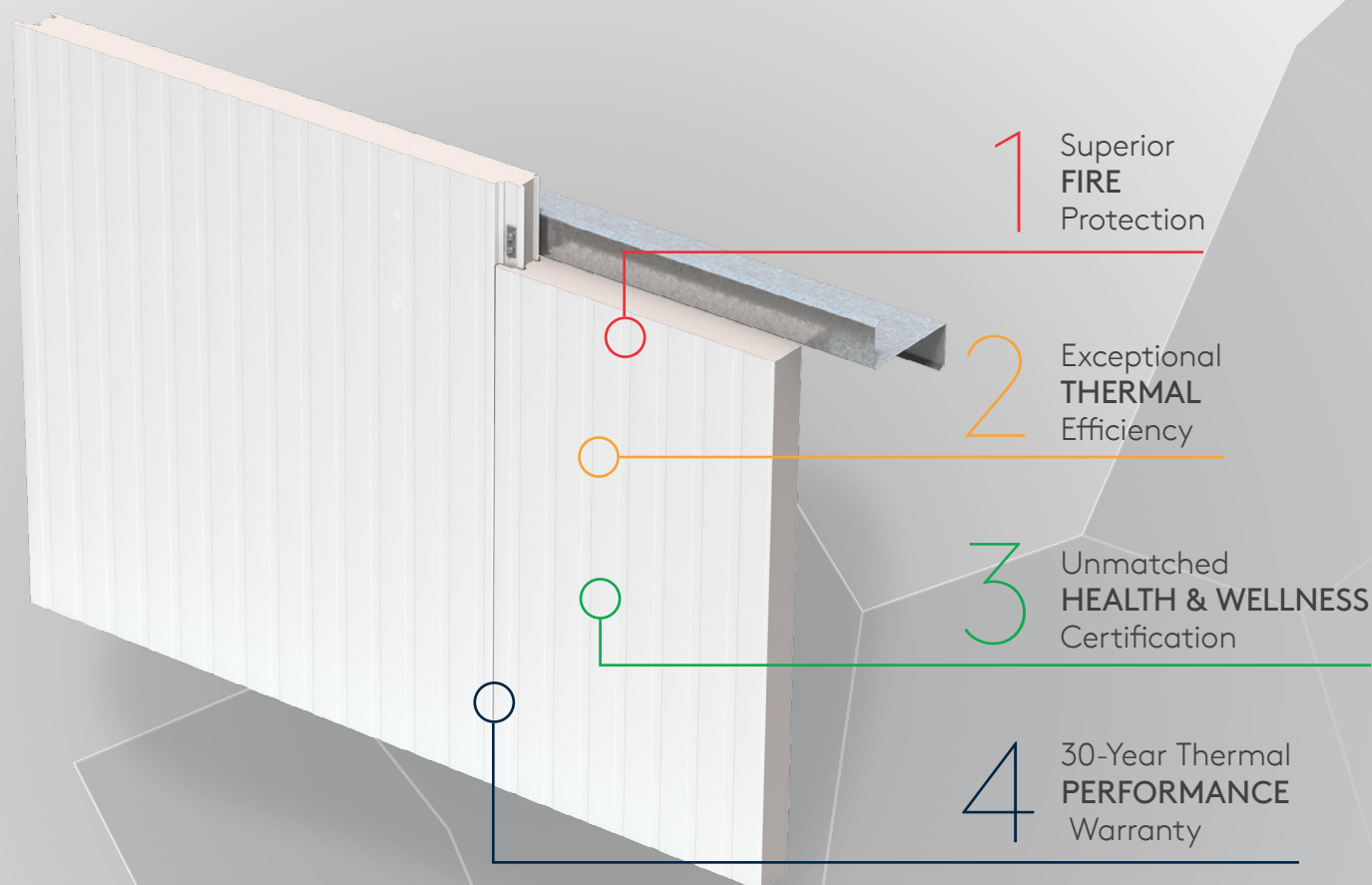


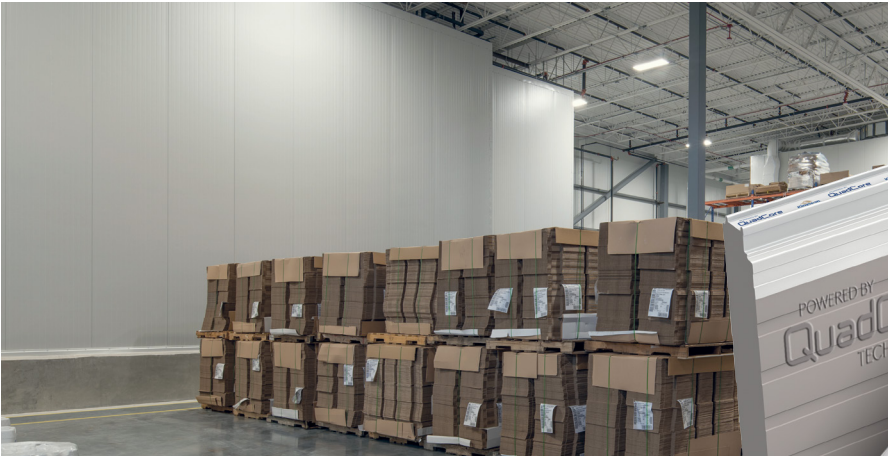


# QuadCore® KS Shadowline Data Sheet



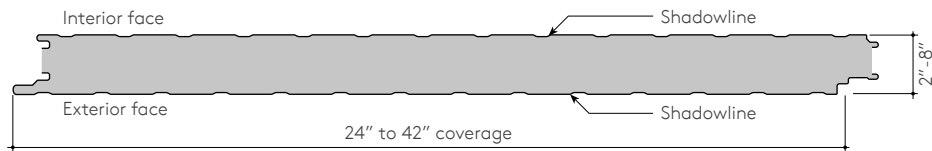
# QuadCore® KS Shadowline Data Sheet

## Insulated Interior and Exterior Wall and Ceiling Panel System



### Product Specification

|                         |                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------|
| Insulation core:        | QuadCore® Technology                                                                                     |
| Profile:                | Exterior: Shadowline<br>Interior: Shadowline                                                             |
| Embossing:              | Exterior: Stucco or non-embossed<br>Interior: Stucco or non-embossed                                     |
| Gauge:                  | Exterior: 26, 24, 22 ga<br>Interior: 26, 24, 22 ga                                                       |
| Width:                  | 24", 30", 36", 42"                                                                                       |
| Thickness:              | 2", 2.5", 3", 4", 5", 6", 8"                                                                             |
| Length:                 | 8' - 53'                                                                                                 |
| Standard reveal option: | Vertical: 1/8" or 3/8"<br>Horizontal: 3/8"                                                               |
| Orientation:            | Vertical or horizontal                                                                                   |
| R-value:                | ≈ 8 per inch per ASTM C518 @ 75°F mean temperature<br>≈ 9 per inch per ASTM C518 @ 35°F mean temperature |



A premium engineered wall/ceiling system for both interior and exterior applications. Specially designed to meet today's high performance standards in a wide variety of environments.

### Applications

KS Shadowline panels are the ideal solution for walls and ceilings for a range of applications including food and life science, pharmaceutical, bio-technology laboratories, research and advanced technology facilities. KS Shadowline panels offer the highest level of hygienic and contamination control.

KS Shadowline panels with QuadCore® feature a non-porous surface which aids cleaning and offers high levels of resistance to bacterial growth, ensuring a controlled, sterile environment.

### Design Features

KS Shadowline panels with QuadCore® utilize our KS joint design that ensures a tight, well designed vapor barrier in enclosures of any size. Panels are produced in stucco embossed or smooth profiles on both the exterior and interior face. Panel coverage is available in standard 42" width.

### Customer Options

Select a custom color to match your needs. For interior heavy wash down environments, plastisol (PVC) coatings as well as stainless steel facings are available (for interior applications only). Available with CLEANsafe 120 coating for superior protection against corrosion. CLEANsafe provides hygiene safe requirements when exposed to secondary food and corrosive cleaning agents.

Member  
**C E B A**  
Controlled Environment  
Building Association

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## Insulated Interior and Exterior Wall and Ceiling Panel System

### Performance Testing and Approvals

Kingspan insulated panels featuring QuadCore® Technology meet specific building envelope performance criteria and requirements stipulated by US and Canadian building codes.

| Test                 | Procedure    | Results                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|--|-----------|---------|-----------|---------|----|----|----|----|------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Fire                 | FM 4880      | Passed: Class 1 Fire Rating of Building Panels or Interior Finish Materials*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      | FM 4882      | Passed: Smoke Sensitive Occupancies Interior and Exterior Use*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      | ASTM E84     | Flame Spread: 25 or Less / Smoke Developed: 90 or Less                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      | CAN/ULC-S101 | Fire Endurance Tests: 10 min (Fastener conditions vary depending on product thickness. Please contact technical.NA@kingspanpanels.com for detailed information.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      | CAN/ULC-S102 | Flame Spread: 20, Smoke Developed: 45 for panel insulation core                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      | CAN/ULC S138 | Passed: Fire growth of foamed plastic insulated building panels in a full scale room configuration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      | CAN/ULC-S134 | Passed: Standard method of test for fire of exterior wall assemblies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      | NFPA 259     | Tested for potential heat of building materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      | NFPA 285     | Passed: Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Structural           | FM 4881      | Passed. For complete wind pressure ratings please contact Kingspan Technical Services or refer to ApprovalGuide.com*                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      | ASTM E72     | Vacuum chamber tested. Panel load / span and deflection tables are available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Thermal Transmission | ASTM C518    | <table><tr><th colspan="2">Thermal Performance at 35°F mean temperature</th><th colspan="2">Thermal Performance at 75°F mean temperature</th></tr><tr><th>Thickness</th><th>R-Value</th><th>Thickness</th><th>R-Value</th></tr><tr><td>2"</td><td>18</td><td>2"</td><td>16</td></tr><tr><td>2.5"</td><td>22.5</td><td>2.5"</td><td>20</td></tr><tr><td>3"</td><td>27</td><td>3"</td><td>24</td></tr><tr><td>4"</td><td>36</td><td>4"</td><td>32</td></tr><tr><td>5"</td><td>45</td><td>5"</td><td>40</td></tr><tr><td>6"</td><td>54</td><td>6"</td><td>48</td></tr><tr><td>8"</td><td>72</td><td>8"</td><td>64</td></tr></table> | Thermal Performance at 35°F mean temperature |                                              | Thermal Performance at 75°F mean temperature |  | Thickness | R-Value | Thickness | R-Value | 2" | 18 | 2" | 16 | 2.5" | 22.5 | 2.5" | 20 | 3" | 27 | 3" | 24 | 4" | 36 | 4" | 32 | 5" | 45 | 5" | 40 | 6" | 54 | 6" | 48 | 8" | 72 | 8" | 64 |
|                      |              | Thermal Performance at 35°F mean temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                              | Thermal Performance at 75°F mean temperature |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      |              | Thickness                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | R-Value                                      | Thickness                                    | R-Value                                      |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      |              | 2"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 18                                           | 2"                                           | 16                                           |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      |              | 2.5"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 22.5                                         | 2.5"                                         | 20                                           |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      |              | 3"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 27                                           | 3"                                           | 24                                           |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      |              | 4"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 36                                           | 4"                                           | 32                                           |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      |              | 5"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 45                                           | 5"                                           | 40                                           |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      |              | 6"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 54                                           | 6"                                           | 48                                           |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      |              | 8"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 72                                           | 8"                                           | 64                                           |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Air Infiltration     | ASTM E283    | 0.01 CFM/ft² of Panel Area at 6.24 psf                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Water                | ASTM E331    | No uncontrolled water penetration at 20 psf differential pressure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      | AAMA 501.1   | Dynamic water pressure testing – no sign of water leakage at 15 psf                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Bond Strength        | ASTM D1623   | Panels tested for tensile bond strength of metal to foam                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|                      |              | Sample placed in an autoclave device and pressurized at 218°F for 2½ hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Skin Delamination    |              | No skin delamination with direct pull off pressure up to 1188 psf                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                              |                                              |                                              |  |           |         |           |         |    |    |    |    |      |      |      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

\*Thickness: 2"-8", Width: 24"-42", Min. panel length: 8', Min. gauge: Exterior 26 ga, Interior 26 ga.

For FM compliance, systems must be installed in accordance with FM installation specifications as detailed on ApprovalGuide.com. Please contact technical.NA@kingspanpanels.com for detailed information or refer to ApprovalGuide.com.



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# Contact Details

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