## BRS, Inc.

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# **TECHNICAL BULLETIN**

## **Insulation Spacer Blocks**

Bulletin No. TS17 Revision No. 1

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These are general guidelines, and the roof designer is responsible for choosing the proper clip and thermal block combination based on the insulation densities they are specifying and/or energy code requirements. Under filled cavities can allow roof rumble or foot traffic problems and over filled cavities can cause pan distortion or purlin read through. Over filling the cavity also causes panel module/ coverage to grow due to the panel pan being held above the designed elevation for the respective clip height. This chart was constructed with 1/8" of space per 1" of compressed insulation. Verify with the insulation manufacturer per their density and adjust accordingly.

#### TS-324 Open Framing

| Insulation                  | Standard Stand-offs |                     | Extended Stand-off           |                                  |                              |  |
|-----------------------------|---------------------|---------------------|------------------------------|----------------------------------|------------------------------|--|
| Thickness                   | 1/2"<br>Stand-off   | 1 1/2"<br>Stand-off | 2"<br>Stand-off <sup>2</sup> | 2 1/2"<br>Stand-off <sup>2</sup> | 3"<br>Stand-off <sup>2</sup> |  |
| No Insulation               | 1/2" Block          | Unsuitable          | Unsuitable                   | Unsuitable                       | Unsuitable                   |  |
| 3" insulation               | Not Required        | 1" Block            | Unsuitable                   | Unsuitable                       | Unsuitable                   |  |
| 4" insulation               | Not Required        | 3/4" Block          | Unsuitable                   | Unsuitable                       | Unsuitable                   |  |
| 6" insulation               | Unsuitable          | 1/2" Block          | 1" Block                     | Unsuitable                       | Unsuitable                   |  |
| 8" insulation               | Unsuitable          | Not Required        | 3/4" Block                   | 1" Block                         | Unsuitable                   |  |
| 10" insulation <sup>1</sup> | Unsuitable          | Unsuitable          | 1/2" Block                   | 3/4" Block                       | 1" Block                     |  |
| 12" insulation <sup>1</sup> | Unsuitable          | Unsuitable          | Not Required                 | 1/2" Block                       | 3/4" Block                   |  |

- 1. Insulation should be slit at clips or combination of 6" faced insulation and 2' wide unfaced batts used.
- 2. BRS recommends use of module tools during roof panel installation.

#### TS-324 Over Screw-Down Roof (1 1/2" major ribs)

| Insulation    | Extended Stand-off     |                        |                        |  |  |
|---------------|------------------------|------------------------|------------------------|--|--|
| Thickness     | 2"                     | 2 1/2"                 | 3"                     |  |  |
|               | Stand-off <sup>2</sup> | Stand-off <sup>2</sup> | Stand-off <sup>2</sup> |  |  |
| No Insulation | Unsuitable             | Unsuitable             | Unsuitable             |  |  |
| 3" insulation | 3/8" block             | 3/4" block             | Unsuitable             |  |  |
| 4" insulation | not required           | 5/8" block             | 1" block               |  |  |
| 6" insulation | Unsuitable             | 1/2" block             | 3/4" block             |  |  |

### PanelCraft Over Screw-Down Roof (1 1/4" Major Ribs)

| Insulation    | Extended Stand-off 2"  |  |
|---------------|------------------------|--|
| Thickness     |                        |  |
|               | Stand-off <sup>2</sup> |  |
| No Insulation | Unsuitable             |  |
| 3" insulation | 3/8" block             |  |
| 4" insulation | not required           |  |
| 6" insulation | Unsuitable             |  |

- 1. Roof designer required to determine existing roof vapor barrier suitability.
- 2. BRS recommends use of module tools during roof panel installation.

#### **PanelCraft Open Framing**

| Insulation                    | 9                      | Extended Stand-off |              |              |
|-------------------------------|------------------------|--------------------|--------------|--------------|
| Thickness                     | 0"                     | 1/2"               | 1 1/2"       | 2"           |
|                               | Stand-off <sup>1</sup> | Stand-off          | Stand-off    | Stand-off    |
| No Insulation                 | Not Required           | 1/2" Block         | Unsuitable   | Unsuitable   |
| 3" insulation                 | Unsuitable             | Not Required       | 1" Block     | Unsuitable   |
| 4" insulation                 | Unsuitable             | Not Required       | 3/4" Block   | Unsuitable   |
| 6" insulation                 | Unsuitable             | Unsuitable         | 1/2" Block   | 1" Block     |
| 8" insulation <sup>3</sup>    | Unsuitable             | Unsuitable         | Not Required | 3/4" Block   |
| 10" insulation <sup>2,3</sup> | Unsuitable             | Unsuitable         | Unsuitable   | 1/2" Block   |
| 12" insulation <sup>2,3</sup> | Unsuitable             | Unsuitable         | Unsuitable   | Not Required |

- 1. Available in fixed clip only.
- 2. BRS recommends use of module tools during panel installation.
- 3. Insulation should be slit at clips or combination of 6" faced insulation and panel width unfaced batts used.

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