Date: August 15, 2016

Subject: Building Insulation Types, Classes & Categories

This is to certify that all CertainTeed Fiber Glass Commercial, AcoustaTherm, CertaPro, Residential and Sustainable Building Insulations are manufactured to comply with ASTM Standard Specification C 665. As stated in our Fiber Glass Insulation Products Submittal Form, under ASTM C 665, unfaced insulations are Type I materials, kraft faced insulations are Type II, Class C, Category 1 materials, standard foil faced insulations are Type III, Class B, Category 1 materials and CertaPro FSK-25 foil faced insulations are Type III, Class A, Category 1 materials.

**ASTM C 665, Material Standard for Building Insulation** classifies batt and roll types of building insulations - with and without applied facings. There are three different terms that are used to describe an insulation material’s characteristics – **Type, Class and Category**. These terms are explained in detail below.

Type I = unfaced  
Type II = non-reflective membrane covering  
Type III = reflective membrane covering (foil)

Flame spread ratings (FSR’s) are expressed as a number on a continuous scale where inorganic reinforced cement board is 0 and red oak is 100. The scale is divided into classes. The most commonly used flame-spread classifications are:

- Class I or A, with a 0-25 FSR  
- Class II or B with a 26-75 FSR  
- Class III or C with a 76-200 FSR  
- Class IV or Class D = Flame Spread Rating 201+

Category 1 materials are those with membranes that are vapor retarders and Category 2 materials are those with membranes that are not vapor retarders.

CertainTeed fiber glass building insulations, exclusive of facings, pass the ASTM E 136 test and have ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials Fire Hazard Classification (FHC) ratings of 25/50 or less and are acceptable under all building codes in all types of construction. Thus, these insulations are accepted by the Model Building Codes including the IRC, IECC and IBC, as well as the legacy BOCA, ICBO and SBCCI building codes.

Standard kraft and foil insulation facings do not have FHC’s of 25/50 or less and can be used only in combustible construction behind suitable finish materials. Low flame spread facings such as FSK-25 are available and can be used in exposed applications in all types of construction.

Following is a definition of Noncombustible Construction:

Noncombustible Construction - Buildings in which walls, partitions, structural elements, floors, ceilings, roofs and exits are of noncombustible materials and which require higher fire resistance ratings than combustible construction (e.g. high rises, hospitals, nursing homes, public assembly and mercantile buildings).

DISCLAIMER: Technical Services recommendations are provided solely for the information of the project designer, architect, engineer or contractor. It is the responsibility of the project designer, architect, engineer and/or contractor to check local code requirements - prior to installation of any CertainTeed product - to assure suitability and code compliance of any design or recommendation described above. CertainTeed is not responsible for applications that do not meet jurisdictional code requirements.”
The following table shows **Type, Class and Category** for each of CertainTeed’s most common batt and roll insulation products:

<table>
<thead>
<tr>
<th>Product</th>
<th>Type</th>
<th>Class</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unfaced Building Insulation</td>
<td>I</td>
<td>------</td>
<td>---------</td>
</tr>
<tr>
<td>Kraft Faced Building Insulation</td>
<td>II</td>
<td>C</td>
<td>1</td>
</tr>
<tr>
<td>FSK Faced Building Insulation</td>
<td>III</td>
<td>A</td>
<td>1</td>
</tr>
</tbody>
</table>

ASTM C 764, Standard Specification for Mineral Fiber Loose-Fill Thermal Insulation classifies products by Type. Theses definitions are shown below:
- Type I Pneumatic application
- Type II Poured application

InsulSafe SP® and Optima™ insulations are noncombustible; pass the ASTM E 136 test and are classified under ASTM E 84 Fire Hazard Classifications (FHC’s) of 25/50 or less. Thus, these insulations are accepted by the Model Building Codes including IRC, IECC and IBC, as well as the legacy BOCA, ICBO and SBCCI building codes.

All of CertainTeed’s Loose-Fill insulations are classified as Type I products for pneumatic applications.

For more information regarding CertainTeed’s comprehensive line of insulation products, please visit our website at [www.certainteed.com/insulation](http://www.certainteed.com/insulation).