



Universal Building Code (UBC) Requirements for CH8 and CH26

What is the flammability rating, Class I, Class II, or Class III, of ACRILEX, INC.'s acrylic products in accordance with building codes (BOCA, ICBO, or SBCCI) specifically in Chapter 8 "Interior Finishes"?

Thermoplastic materials such as **Acriglas® acrylic sheet** will not meet the requirements for Chapter 8 "Interior Finishes" and therefore do not have a specific flammability rating of Class I, Class II, or Class III. The requirements for Chapter 8 "Interior Finishes" are that the material must have a flame spread rating less than 200 and a smoke development rating less than 450 in accordance with ASTM E 84. Acrylic materials do meet the required maximum flame spread rating of 200 but their smoke development ratings exceed 450 when tested in accordance with ASTM E 84. When acrylic materials are tested for smoke development in accordance with ASTM E 84, the materials will melt and drip to the bottom of the test chamber resulting in the generation of large amounts of smoke and a high value for smoke developed.

Building codes recognize that thermoplastics do not meet the requirements of Chapter 8 "Interior Finishes" as per ASTM E 84 and, therefore, Chapter 26 "Light Transmitting Plastics" had been established. Chapter 26 "Light Transmitting Plastics" provides criteria for building applications using acrylic material. Approved plastics for Chapter 26 "Light Transmitting Plastics" must have a self-ignition temperature greater than 650 degrees Fahrenheit in accordance with ASTM D 1929, a smoke density rating less than 75% in accordance with ASTM D 2843 and a burning rate of less than 2.5 inches per minute in accordance with ASTM D 635. If the extent of burn measured in the ASTM D 635 test is less than 1.0 inch, the material is classified as a Class C1 or CC1 material. If the extent of burn is greater than 1.0 inch, or the burn rate is less than 2.5 inches per minute, it is classified as a Class C2 or CC2 material.

Acriglas® acrylic sheet has a self-ignition temperature of 910 degrees Fahrenheit, a smoke density rating of 10.3% and a C2 or CC2 classification for a thickness of 0.250".

ACRILEX, INC.'s acrylic sheet products meet the requirements of Chapter 26 "Light Transmitting Plastics" and may be used in building applications as outlined in Chapter 26 "Light Transmitting Plastics" of the Model building codes. Many building applications are not specifically addressed in the Model building codes. Local building code officials should be consulted in these instances. They will often approve the use of acrylic sheet in applications not specifically outlined in the Model building codes and sometimes will grant exceptions to the guidelines in the Model building codes if adequate information about the material is provided. ACRILEX, INC. can assist in providing test reports and other information.