Celbar™ Loosefill Specification

1. Scope

1.1 This specification provides data pertinent to the pneumatic application of Celbar™ Loosefill cellulose insulation in attics and walls. Celbar™ Loosefill provides outstanding resistance to heat flow for thermal applications of residential and commercial construction.

2. Materials

2.1 More than 80% of the content of Celbar™ Loosefill insulation is processed from recycled wood-based cellulose fiber. These fibers are chemically treated to create permanent flame resistance. The additives are non-toxic, will not irritate normal skin, will not attract vermin or insects and will not adversely affect other building materials. Celbar™ Loosefill contains no ammonia-based treatments, fiberglass, rock wool or asbestos.

3. Functions

3.1 Insulation. Celbar™ Loosefill insulation resists the flow of heat in three ways. Air is trapped (1) within, (2) by the wall of the fiber and (3) between fibers creating significant resistance to air movement. This natural ability to trap air provides cellulose insulation with 25% to 40% more effective insulation power than the same R-Value of other low-density loose-fill fibrous insulating materials.

3.2 Sound Control. These same isolated air pockets and density also provide effective noise reduction in walls and between floors by effectively creating a customized batt at the job site.

4. Material Characteristics

4.1 All cellulose insulation sold in the U.S. must conform to the CPSC standard 16 CFR Parts 1209 and 1404. In addition, Celbar™ Loosefill meets all of the test requirements of ASTM C-739 Underwriters Laboratories (R-8173) tested the following properties:

4.1.1 Density

The maximum density anticipated after long- term settling of dry applications was determined by the following specifications:

- ASTM C-739 — 1.6 lb/ft³

4.1.2 Thermal Resistance

The average thermal resistance per inch was determined by test methods:

- ASTM C-518 — (4 in. thick)
- ASTM C-739 — 3.40 (R-Value/in)

4.1.3 Surface Burning Characteristics

Two surface burning characteristics are evaluated. They are:

- Critical Radiant Flux: using test method ASTM E-970
- Flame Spread: using ASTM E-84

Celbar™ Loosefill insulation meets or exceeds the specified requirements for each test as follows:

- ASTM E-970 greater than 0.12 watts/cm
- ASTM E-84 less than 25

4.1.3.1 Building Codes

Properly installed Celbar™ Loosefill insulation meets the requirements for thermal insulating materials set forth in CABO, BOCA, ICBO, SBCCI, Model Energy Code and the National Building Code of Canada.

4.1.4 Moisture Vapor Absorption

This requirement assures that normal variations in relative humidity will not adversely affect thermal resistance. Celbar™ Loosefill insulation meets the requirements of less than 15% for maximum weight gain under the specified test conditions.

4.1.5 Corrosiveness

When in contact with steel, copper, aluminum, or galvanized materials, Celbar™ Loosefill insulation was determined to be non-corrosive.

4.1.6 Other Properties Tested

Celbar™ Loosefill cellulose insulation passed these additional tests:

- Odor Emission Starch Content
- Fungi Resistance Separation of Chemicals
- Smolder Resistance Flame Spread Permanency