UL Product iQ™

BXUV.U053 - Fire-resistance Ratings - ANSI/UL 263

PANEL REY®
Drywall Solutions

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

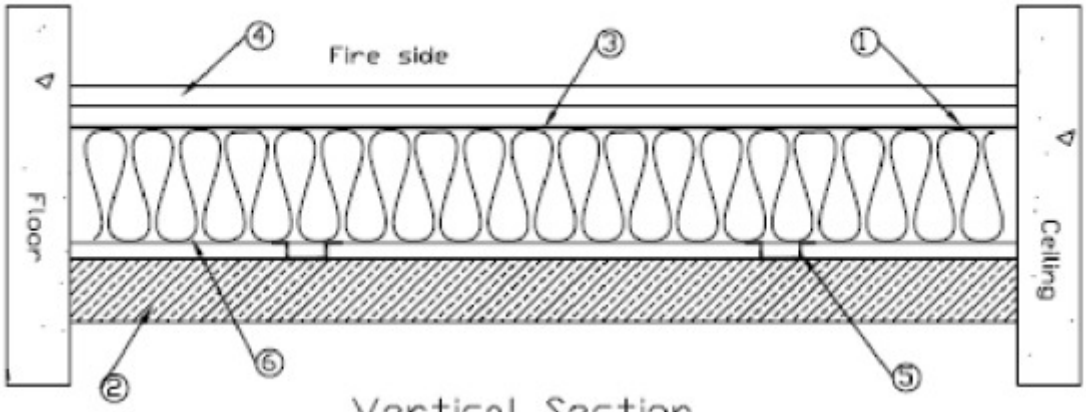
Design No. U053

March 11, 2020

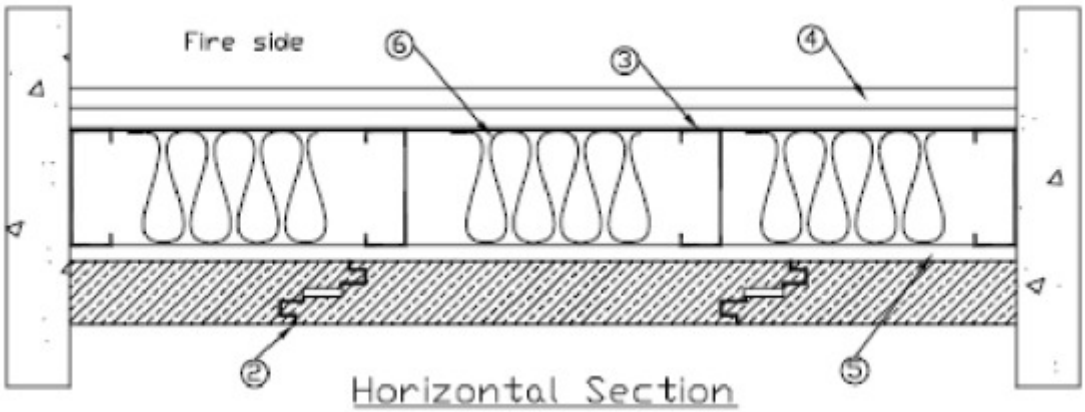
Nonbearing Wall Rating — 1, 2 or 3 Hr (See Item 4)

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

1 HOUR RATING

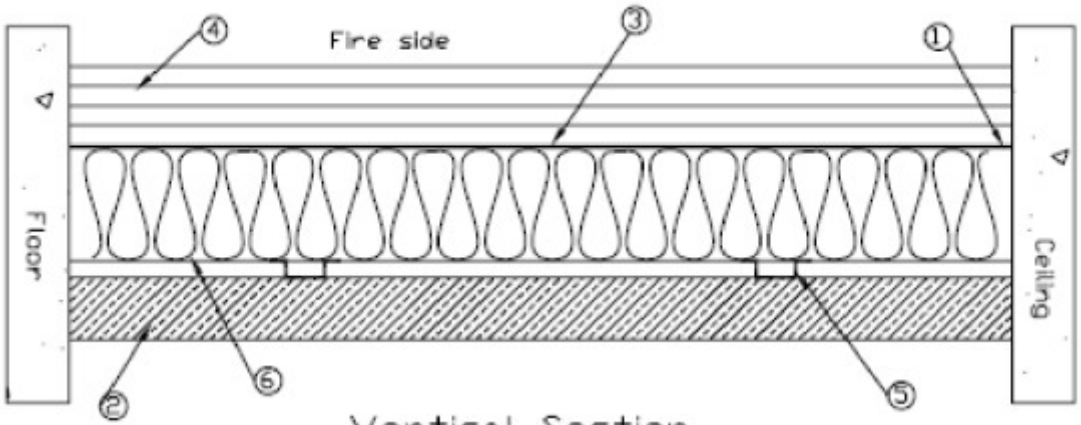


Vertical Section



Horizontal Section

2 HOUR RATING



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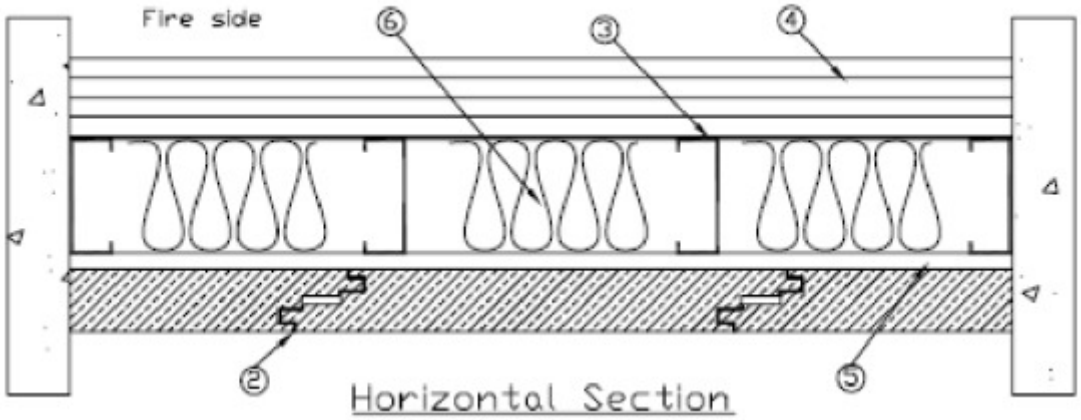
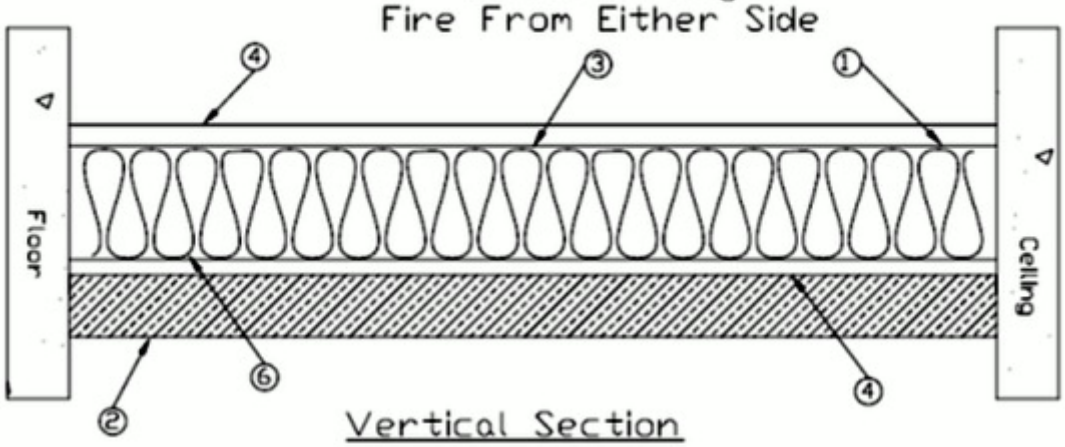


Horizontal Section

1 Hour Rating
Fire From Either Side



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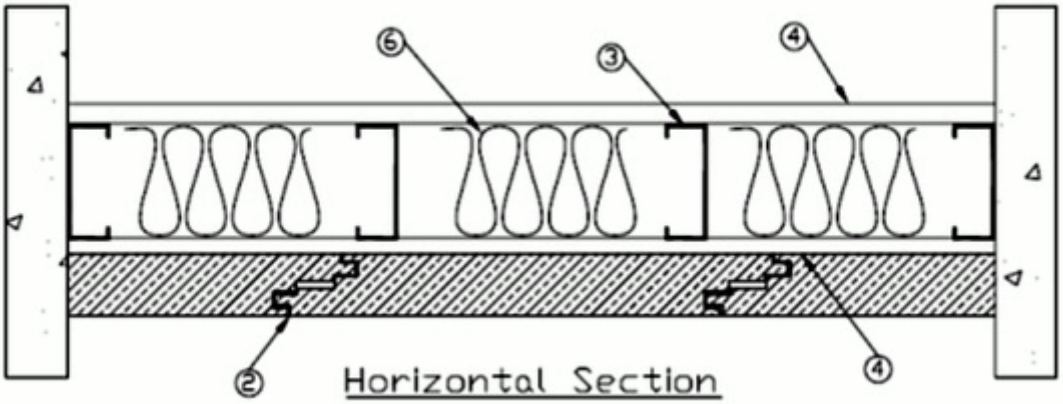
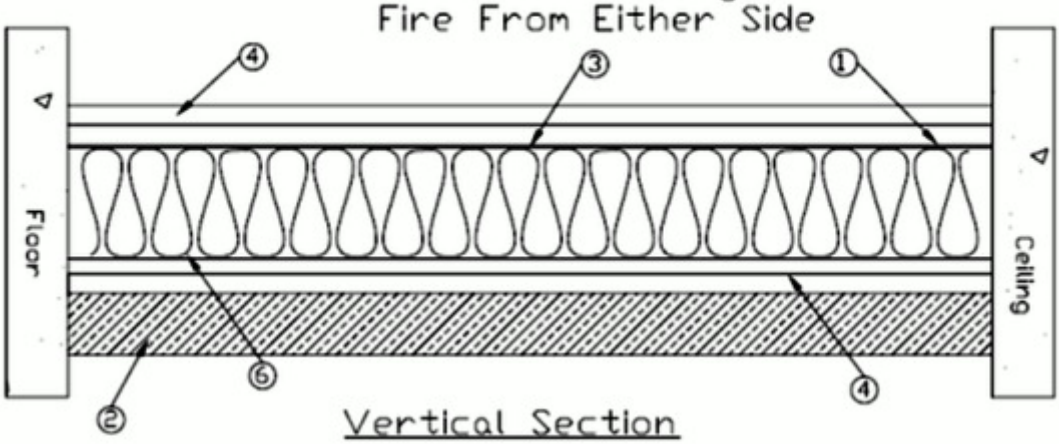
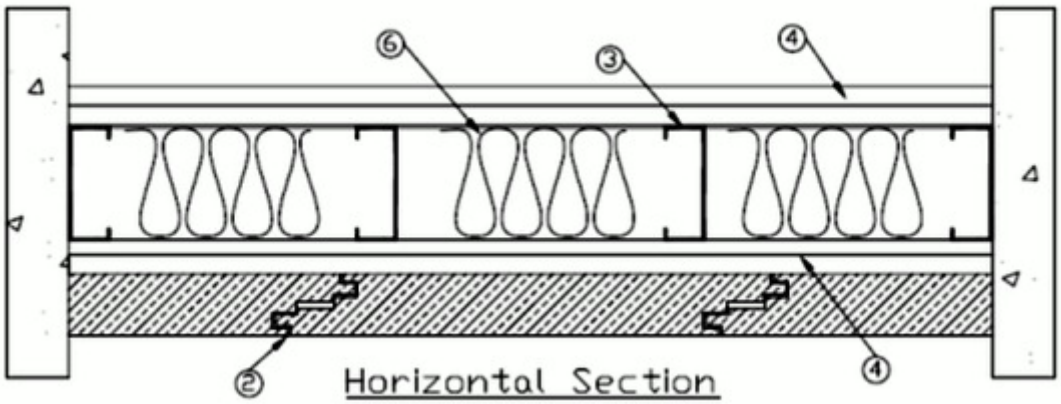


Horizontal Section

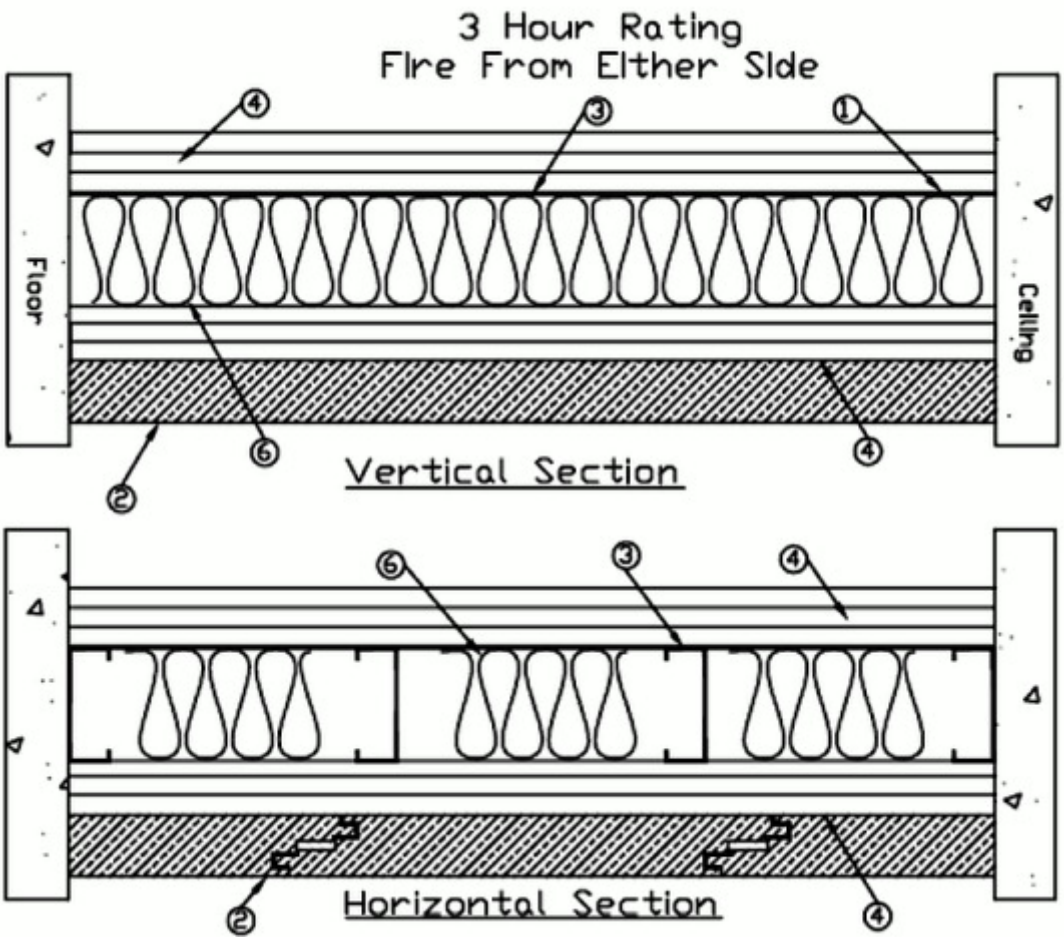
2 Hour Rating
Fire From Either Side



Vertical Section



Horizontal Section



1. **Floor and Ceiling Runners —** Channel-shaped runners, 3-5/8 in. wide min, fabricated from No. 25 MSG galv steel. Attached to floor and ceiling with fasteners spaced 24 in. OC, max.

2. **Building Units* —** Insulated steel panels, 12 through 42 in. wide. Attached through retainer clips to studs or support steel with No. 14 hex head self-tapping screws located at each joint in the concealed lip of the units and spaced in accordance with the structural design requirements.

KINGSPAN INSULATED PANELS INC — Types 200, 300, 400, 900, or KS series, 2 through 6 in. thickness; CWP-V, H, 2 through 3 in. nominal thickness or Designwall 2000 or Designwall 4000, 2 and 3 in. nominal thickness.

2A. **Units, Partition Panel* —** As an alternate to Item 2 — Two metal faced panels installed in either order. Min. 2 in.(51 mm) thick urethane foam core panel overlayed with a min. nom. 4 in.(102 mm) thick (for the 1 Hour Rating) nom. 7 in.(178 mm) thick (for the 2 Hour Rating), or nom. 8 in.(203 mm) thick (for the 3 Hour Rating) mineral fiber core panel. Panels may be installed vertically or horizontally. Urethane foam core panels produced in 24(610 mm), 30(762 mm), 36(914 mm), 42(1067 mm) and 44-1/2 in.(1130 mm) widths Mineral fiber core panels produced 42 in.(1067 mm) wide. Panel lengths vary.

For the 3 hour rating, 1/8 in.(3.2 mm) diameter steel or stainless steel pop rivets shall be installed through the tongue and groove joint of the mineral wool core panel 1/4 in.(6 mm) from the panel edge and 3 ft.(915 mm) on center along the length of the joint. The rivets shall be long enough to secure the exterior face of the male edge of the tongue and groove joint (single layer of metal skin) to the exterior face of the female edge of the tongue and groove joint (double layer of metal skin). As an alternate to the rivets, min. No. 6-20 x 3/8 in.(10 mm) long carbon or stainless steel self-drilling screws may be used. The rivets or screws may be eliminated on one side of the assembly. When the rivets or screws are eliminated on one side of the assembly, the rating is limited to fire exposure on the side of the assembly with the rivets or screws only.

METL-SPAN, A DIVISION OF NCI GROUP, INC. — Type ThermalSafe (mineral fiber core) and CF (urethane foam core) Panels.

2B. **Panel Fasteners —** For use with Item 2A - Urethane foam core panels secured to steel studs (item 3) or subgirts (item 5) with concealed panel clips and min. #14 self-tapping fastener provided at each longitudinal panel edge. Mineral fiber core

panels secured with min. #14 self-tapping fasteners through panel into the supports, spaced 18 in.(457 mm) OC and 3 in.(76 mm) from each joint. Screw lengths shall permit full thread engagement into the panel supports.

3. **Steel Studs —** Channel shaped, 3-5/8 in. wide min, 1-1/4 in. legs, 3/8 in. folded back returns, min 0.020 in. thick (25 gauge) galv steel spaced 24 in. OC max. Studs 3/8 in. less in lengths than assembly height.

3A. **Wood Studs —** As an alternate to Steel Studs Item 3. Non-loadbearing, nom 2 by 4 in. spaced 16 in. OC with two 2 by 4 in. top and one 2 by 4 in. bottom plates. Walls effectively fire stopped at top and bottom of wall.

4. **Gypsum Board* —** (For 1 and 2 hour ratings when exposed on interior face only) - Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305. **For a 1 hour rating**, 5/8 in. thick, 4 ft wide, two layers applied vertically with joints centered over studs. Inner layer attached to studs and runners with 1 in. long, Type S screws spaced 12 in. OC. Face layer attached through inner layer into studs and runners with 1-5/8 in. long Type S screws spaced 18 in. OC. Joints to be staggered from the inner layer. **For a 2 hour rating**, 5/8 in. thick, 4 ft wide, four layers applied vertically with joints centered over studs. Base layer attached to studs and runners with 1 in. long, Type S screws spaced 12 in. OC. Second layer attached through base layer into studs and runners with 1-5/8 in. long Type S screws spaced 18 in. OC. Third layer attached through base layer into studs and runners with 2-1/4 in. long Type S screws spaced 18 in. OC. Face layer attached through base layer into studs and runners with 3 in. long Type S screws spaced 18 in. OC. Joints to be staggered 24 in. from the inner layer joint. Screws offset a min. 6 in. from layer below.
CABOT MANUFACTURING ULC (View Classification) — CKNX.R25370

AMERICAN GYPSUM CO (View Classification) — CKNX.R14196

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO (View Classification) — CKNX.R19374

CERTAINTEED GYPSUM INC (View Classification) — CKNX.R3660

CGC INC (View Classification) — CKNX.R19751

GEORGIA-PACIFIC GYPSUM L L C (View Classification) — CKNX.R2717

CERTAINTEED GYPSUM INC (View Classification) — CKNX.R18482

LOADMASTER SYSTEMS INC (View Classification) — CKNX.R11809

NATIONAL GYPSUM CO (View Classification) — CKNX.R3501

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM (View Classification) — CKNX.R7094

PANEL REY S A (View Classification) — CKNX.R21796

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD (View Classification) — CKNX.R19262

GEORGIA-PACIFIC GYPSUM L L C (View Classification) — CKNX.R6937

THAI GYPSUM PRODUCTS PCL (View Classification) — CKNX.R27517

UNITED STATES GYPSUM CO (View Classification) — CKNX.R1319

USG MEXICO S A DE C V (View Classification) — CKNX.R16089

4A. **Gypsum Board* —** (For 1, 2 and 3 hour rating when exposed on either side of wall) - Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305. See Item 4 for list of Companies. **For a 1 hour rating**, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. **For a 2 hour rating**, 5/8 in. thick, 4 ft wide, two layers applied vertically on both sides of studs with joints centered over studs. Base layer attached to studs and runners with 1 in. long, Type S screws spaced 16 in. OC statting 8 in. from the edge of the board with an additional screw placed 1-1/4 in. from each edge of boad. Second layer attached through base layer into studs and runners with 1-5/8 in. long Type S screws spaced 16 in. OC starting 8 in. from each edge of the board with an additional screw placed 1-1/4 in. from each edge of the board. Joints to be staggered 24 in. from the inner layer joint. Screws offset a min. 6 in. from layer below. **For a 3 hour rating**, 5/8 in. thick, 4 ft wide, three layers applied vertically on both sides of studs with joints centered over. Base layer attached to studs and runners with 1 in. long, Type S screws spaced 24 in. OC. Second layer attached through base layer into studs and runners with 1-5/8 in. long Type S screws spaced 24 in. OC. Third layer attached through second and base layers into studs and runners with 2-1/4 in. long Type S screws spaced 12 in. OC. Joints to be staggered 24 in. from the inner layer joint. For all layers, an additional screw shall be placed 1-1/4 in. from the edge of the board. Screws offset a min. 6 in. from layer below.

5. **Subgirts (optional) —** Hat or Z shaped min 1/2 in. deep, min .045 in. thick (18 gauge) galv steel, attached to studs, 48 in. OC with No. 14 self-tapping screws or No. 14 self-drilling screws.

6. **Batts and Blankets* —** (Optional) — Placed in stud cavities. Any glass fiber or mineral wool batt material bearing the UL Classification Marking as for Fire Resistance, of a thickness to completely fill the stud cavity.
See **Batts and Blanket** (BZJZ) Category for names of Classified companies.

6A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 6) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.
U S GREENFIBER L L C — INS735, INS745, INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only.

6B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 6) and Item 6A - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC — Cellulose Insulation

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2020-03-11