

BXUV.U354 - Fire-resistance Ratings - ANSI/UL 263



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. U354

November 09, 2020

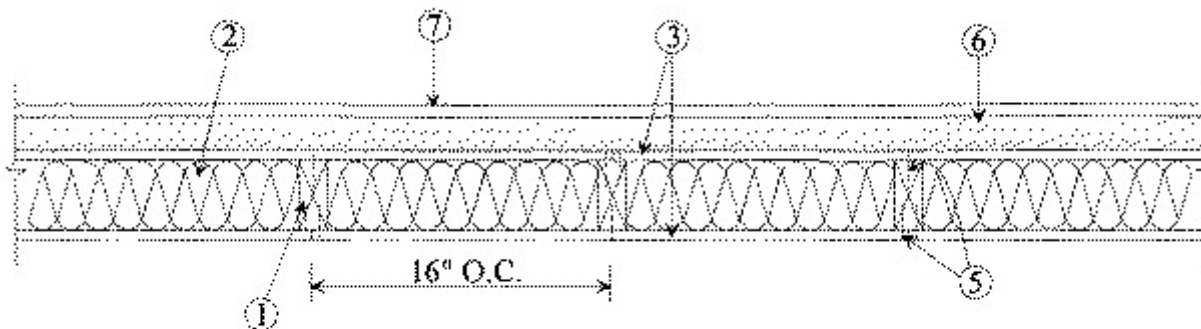
(Exposed to Fire on Interior Face Only)

Bearing Wall Rating — 1 Hr

Finish Rating — 24 Min

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide [BXUV](#) or [BXUV7](#)

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



1. **Wood Studs** — Nom 2 x 4 in. spaced 16 in. OC. Cross braced at midheight and effectively firestopped at top and bottom of wall.

2. **Batts and Blankets*** — Unfaced glass fiber batts, min 3-1/2 in. thick, min density of 0.72 pcf, pressure fit in wall cavities between studs and cross bracing.

See **Batts and Blankets*** (BZJZ) category for names of Classified companies.

2A. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 2) — 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/ft³. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions supplied with the product.

U S GREENFIBER L L C — INS735, INS745 and INS750LD for use with wet or dry application. INS515LD, INS541LD, INS735, INS765LD, and INS773LD are to be used for dry application only.

2B. **Fiber, Sprayed*** — As an alternate to Item 2 and 2A — 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. Nominal dry density of 4.58 lb/ft³.

NU-WOOL CO INC — Cellulose Insulation

2C. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 2) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft³.

INTERNATIONAL CELLULOSE CORP — Celbar-RL

3. **Gypsum Board*** — 5/8 in. thick gypsum boards, paper, glass mat or vinyl surfaced, with beveled, square or tapered edges, applied either horizontally or vertically. Wallboard nailed 7 in. OC with 6d cement-coated nails or No. 6 bugle head drywall screws, 1-7/8 in. long. When used in widths other than 48 in., wallboard is to be installed horizontally.

AMERICAN GYPSUM CO — Types AGX-1 (finish rating 23 min), M-Glass (finish rating 23 min), AGX-11 (finish rating 26 min), LightRoc (finish rating 23 min).

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO — Type DBX-1 (finish rating 24 min).

CABOT MANUFACTURING ULC — Type X (finish rating 22 min), 5/8 Type X, Moisture Resistant Type X, Gypsum Sheathing Type X, Mold & Mildew Resistant Type X and Mold & Mildew Resistant AR Type X, Type Blueglass Exterior Sheathing

CERTAINTEEED GYPSUM INC — Types EGRG or GlasRoc (finish rating 23 min), GlasRoc-2, Type X or Type X-1 (finish rating 26 min) or Type C.

CGC INC — Type AR (finish rating 26 min), Type C (finish rating 26 min), Type IP-X1 (finish rating 26 min), Type IP-X2 (finish rating 26 min), Type SCX (finish rating 26 min), Type SHX (finish rating 26 min), Type WRC (finish rating 26 min), Type WRX (finish rating 26 min), Type IP-AR (finish rating 26 min), Type IPC-AR (finish rating 26 min), Type ULIX (finish rating 20 min.), Type ULX (finish rating 22 min), Type USGX (Joint tape and compound, Item 5, optional for use with Type USGX).

CERTAINTED GYPSUM INC — Type LGFC6A (finish rating 34 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX, CLLX.

GEORGIA-PACIFIC GYPSUM L L C — Type 5 (finish rating 26 min), Type 6 (finish rating 23 min), Types 9 (finish rating 26 min), Type C (finish rating 26 min), Types DGG (finish rating 20 min), Type GPFS1 (finish rating 20 min), Type GPFS2 (finish rating 20 min), Type GPFS6 (finish rating 26 min), Type DS, Type DAP, Type DD (finish rating 20 min), Type DA, Type DAPC, LS (finish rating 23 min), Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X, TG-C, GreenGlass Type X, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type-DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W.

NATIONAL GYPSUM CO — Type eXP-C, FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW (finish rating 20 min), Type FSW-2 (finish rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-6 (finish rating 20 min), Type FSW-G (finish rating 20 min), Type FSW-8, Type FSK-C (finish rating 20 min), Type FSW-C (finish rating 20 min), Type FSMR-C, Type FSL (finish rating 24 min), RSX.

NATIONAL GYPSUM CO — Riyadh, Saudi Arabia — Type FR, or WR.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-2 (finish rating 20), PG-3 (finish rating 20 min), Types PG-3W, PG-5W (finish rating 20 min), Type PG-4 (finish rating 20 min), Type PG-6 (finish rating 23 min), Types PG-3WS, PG-5WS (finish rating 20 min), Types PG-5, PG-9 (finish rating 26 min), PG-11, Type PG-C, Type PGS-WRS, Type PGI.

PANEL REY S A — Types GREX, GRIX, PRX, RHX, MDX, ETX.

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1 (finish rating 26 min)

THAI GYPSUM PRODUCTS PCL — Type X or Type C.

UNITED STATES GYPSUM CO — Type AR (finish rating 26 min), Type C (finish rating 26 min), Type FRX-G (finish rating 29 min), Type IP-AR (finish rating 26 min), Type IPC-AR (finish rating 26 min), Type IP-X1 (finish rating 26 min), IP-X2 (finish rating 26 min), Type SCX (finish rating 26 min), Type SHX (finish rating 26 min), Type ULIX (finish rating 20 min.), Type ULX (finish rating 22 min), Type USGX (Joint tape and compound, Item 5, optional for use with Type USGX), Type WRC (finish rating 26 min), Type WRX (finish rating 26 min).

USG BORAL DRYWALL SFZ LLC — Types C, SCX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

USG MEXICO S A DE C V — Type AR (finish rating 26 min), Type C (finish rating 26 min), Type IP-X1 (finish rating 26 min), Type IP-X2 (finish rating 26 min), Type SCX (finish rating 26 min), Type SHX (finish rating 26 min), Type WRC (finish rating 26 min), Type WRX (finish rating 26 min), Type IP-AR (finish rating 26 min), Type IPC-AR (finish rating 26 min), ULX (finish rating 22 min), Type USGX (Joint tape and compound, Item 5, optional for use with Type USGX).

3A. Gypsum Board* — (As an alternate to Item 3) — Nom 3/4 in. thick, installed as described in Item 3.

CGC INC — Types AR, IP-AR.

UNITED STATES GYPSUM CO — Types AR, IP-AR.

USG MEXICO S A DE C V — Types AR, IP-AR.

3B. Gypsum Board* — (As an alternate to Items 3 and 3A) - 5/8 in. glass-mat faced with square edges, applied either horizontally or vertically. Gypsum panels nailed 7 in. OC around the perimeter and in the field with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. Nails shall be placed 1 inch and 3 inch from horizontal joints and 7 inch OC thereafter.

CGC INC — Type USGX

UNITED STATES GYPSUM CO — Type USGX

USG BORAL DRYWALL SFZ LLC — Type USGX

USG MEXICO S A DE C V — Type USGX

3C. Gypsum Board* — (As an alternate to Items 3 through 3B) - 5/8 in. thick, 4 ft. wide, paper surfaced applied vertically and secured as described in Item 3.

GEORGIA-PACIFIC GYPSUM L L C — Type X ComfortGuard Sound Deadening Gypsum Board (finish rating 27 min).

3D. Gypsum Board* — (As an alternate to Items 3 through 3C) - Installed as described in Item 3. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically.

NATIONAL GYPSUM CO — Type SBWB

3E. Gypsum Board* — (As an alternate to Items 3 through 3D) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 3.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES.

3F. Gypsum Board* — (As an alternate to Items 3 through 3E) - 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically or horizontally with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board.

CERTAINTED GYPSUM INC — Type SilentFX

3G. Gypsum Board* — (As an alternate to Item 3) — 5/8 in. thick, 4 ft. wide, applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Secured as described in Item 3.

CERTAINTED GYPSUM INC — 5/8" Easi-Lite Type X (finish rating 24 min)

THAI GYPSUM PRODUCTS PCL — Type X

3H. Gypsum Board* — (As an alternate to 5/8 in. Type FSW in Item 3) - 2 layers nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal joints on the same side need not be staggered.. Inner layer attached with fasteners, as described in item 3, spaced 24 in. OC. Outer layer attached per Item 3.

NATIONAL GYPSUM CO — Type FSW.

3I. Wall and Partition Facings and Accessories* — (As an alternate to Items 3 through 3G) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 3.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527.

3J. Gypsum Board* — (As an alternate to Item 3) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a maximum 10 in. OC with the last two screws 4 and 1 in. from the edges of the board. When used in widths other than 48 in., gypsum panels are to be installed horizontally.

CERTAINTED GYPSUM INC — Type LGFC6A (finish rating 21 min), Type LGFC2A, Type LGFC-C/A, Type LGFC-WD, Type LGLLX

3K. Gypsum Board* — (As an alternate to Item 3) — 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1-1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths of other than 48 in., gypsum boards are to be installed horizontally.

AMERICAN GYPSUM CO — Types AGX-1, M-Glass, AG-C, LightRoc.

4. Steel Corner Fasteners — (Optional, not shown) — For use at wall corners. Channel shaped 2 in. long by 1 in. high on the back side with two 1/8 in. wide cleats protruding into the 5/8 in. wide channel, fabricated from 24 gauge galv steel. Fasteners applied only to the end or cut edge (not along tapered edges) of the wallboard, no greater than 2 in. from corner of wallboard, max spacing 16 in. OC. Nailed to adjacent stud through tab using one No. 6d cement coated nail per fastener. Corners of wallboard shall be nailed to top and bottom plate using No. 6d cement coated nails.

5. Joints and Fastener Heads — Interior joints covered with tape and joint compound. Interior fastener heads covered with joint compound. Exterior side joints and fastener heads uncovered.

6. Sheathing — Foamed Plastic* — Max 1-1/2 in. thick, 4 ft wide sheathing, with square edges. Sheathing is applied vertically. Sheathing fastened with 3 in. long E. G. roofing nails spaced 8 in. OC along the edges and 12 in. OC in the field.

ATLAS ROOFING CORP — "EnergyShield Pro Wall Insulation", "EnergyShield Pro 2 Wall Insulation", EnergyShield CGF Pro and EnergyShield Ply Pro

CARLISLE COATINGS & WATERPROOFING INC — Type R2+ SHEATHE

DUPONT DE NEMOURS, INC. — Type Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax XARMOR, Thermax IH Insulation, Thermax Plus Liner Panel, Thermax Heavy Duty Plus (HDP), Thermax Butler Stylwall Insulation Board and Thermax Morton Heavy Duty Insulation Board

FIRESTONE BUILDING PRODUCTS CO L L C — "Enverge™ CI Foil Exterior Wall Insulation" and "Enverge™ CI Glass Exterior Wall Insulation"

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Type "Xci-Class A", "Xci 286", "Xci Foil (Class A)", "Xci CG", "Xci Foil", "Xci CG NH", "Xci Foil NH"

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — Types "TSX-8500", "ECOMAXci FR", "TSX-8510", "ECOMAX xi FR White", "ECOMAXci", "ECOMAXci FR Air Barrier", "Thermasheath-XP", "Thermasheath", "Durasheath", "Thermasheath-3", "Durasheath-3".

JOHNS MANVILLE — Type "AP Foil-Faced Foam Sheathing"

6A. Building Units — As an alternate to Item 6, max. 1-1/2-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in., with a facer on one side and with oriented strand board or plywood on the other. Sheathing is applied vertically. Sheathing fastened with 3 in. long E. G. roofing nails spaced 8 in. OC along the edges and 12 in. OC in the field.

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Type "Xci NB" and "Xci Ply"

LAMINATORS INC — Type "Omega ci"

6B. Building Units* — As an alternate to Items 6 or 6A, min. 1-in thick polyisocyanurate composite foamed plastic insulation boards, nom. 48 by 48 or 96 in. attached to studs with 8d nails or 2-1/2 in. long Type W screws.

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — "Thermasheath-SI", "ECOBASEci", "ThermaBase-CI", "ECOMAXci FR Ply", "ECOMAXci Ply"

7. Exterior Wall Coverings — Installed in accordance with the manufacturers installation instructions.

7A. Aluminum Siding — 0.019 in. min thick painted aluminum meeting AAMA 1402. Fastened over foam plastic sheathing to wood studs.

7B. Steel Siding — 0.017 in. min thick (No. 17 GSG gauge) painted steel. Fastened over foam plastic sheathing to wood studs.

7C. Vinyl Siding — 0.035 in. min thick vinyl, UL Classified exterior plastic siding (Molded Plastic). Fastened over foam plastic sheathing to wood studs.

7D. Wood Siding — 0.313 in. min thick lumber, plywood or OSB wood based siding. Fastened over foam plastic sheathing to wood studs.

7E. Hard board Siding — 0.250 in. min thick hard board UL Classified exterior hard board siding (Hard board). Fastened over foam plastic sheathing to wood studs.

7F. Fiber-Cement Siding — 0.250 in. min thick fiber-cement based siding. Fastened over foam plastic sheathing to wood studs.

7G. Stone — 2.0 in. min (natural stone) or 1.5 in (cast artificial) thick stone. Fastened over foam plastic sheathing to wood studs.

7H. Brick Veneer — 2.0 in. min thick brick units. Fastened over foam plastic sheathing to wood studs with metal ties.

7I. Concrete Masonry Veneer — 2.0 in. min thick concrete masonry units. Fastened over foam plastic sheathing to wood studs with metal ties.

7J. Stucco — Portland cement type — 0.750 in. min thickness. Metal lath or mesh base fastened over foam plastic sheathing to wood studs.

7K. One-Coat Stucco — 0.375 in. min thickness. Wire fabric lath fastened over foam plastic sheathing to wood studs.

7L. Exterior Insulation and Finish System (EIFS) — Base coat with reinforcing mesh applied over foam plastic sheathing (Quik-R Wall Insulation) followed by finish coat. Type Quik-R Sheathing (Item 6) must be used for this exterior wall covering.

7M. Wall and Partition Facing and Accessories — (Not Shown) Installed in accordance with the manufacturers installation instructions. Min. 0.25 in. (6 mm) thick panel fastened to the exterior surface.

KEENE BUILDING PRODUCTS CO INC — Types Driwall Rainscreen 020, Driwall Rainscreen 10 and CAV-AIR-ATOR

*** 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 2020-11-09

La presencia del nombre de una empresa o producto en esta base de datos no garantiza por sí misma que los productos así identificados hayan sido fabricados bajo el servicio de seguimiento de UL. Solo aquellos productos que lleven la marca UL deben considerarse como certificados y garantizados bajo el servicio de seguimiento de UL. Busque siempre la marca en el producto.

UL permite la reproducción del material contenido en el directorio de certificación en línea sujeta a las siguientes condiciones: 1. La información de la guía, las ensamblajes, las construcciones, los diseños, los sistemas y/o certificaciones (archivos) deben presentarse en su totalidad y de forma no engañosa, sin ninguna manipulación en los datos (o dibujos). 2. Debe aparecer la declaración "Reimpreso desde el directorio de certificaciones en línea con permiso de UL" junto al material extraído. Además, el material reimpreso debe incluir una nota de derechos de autor en el siguiente formato: "© 2021 UL LLC"