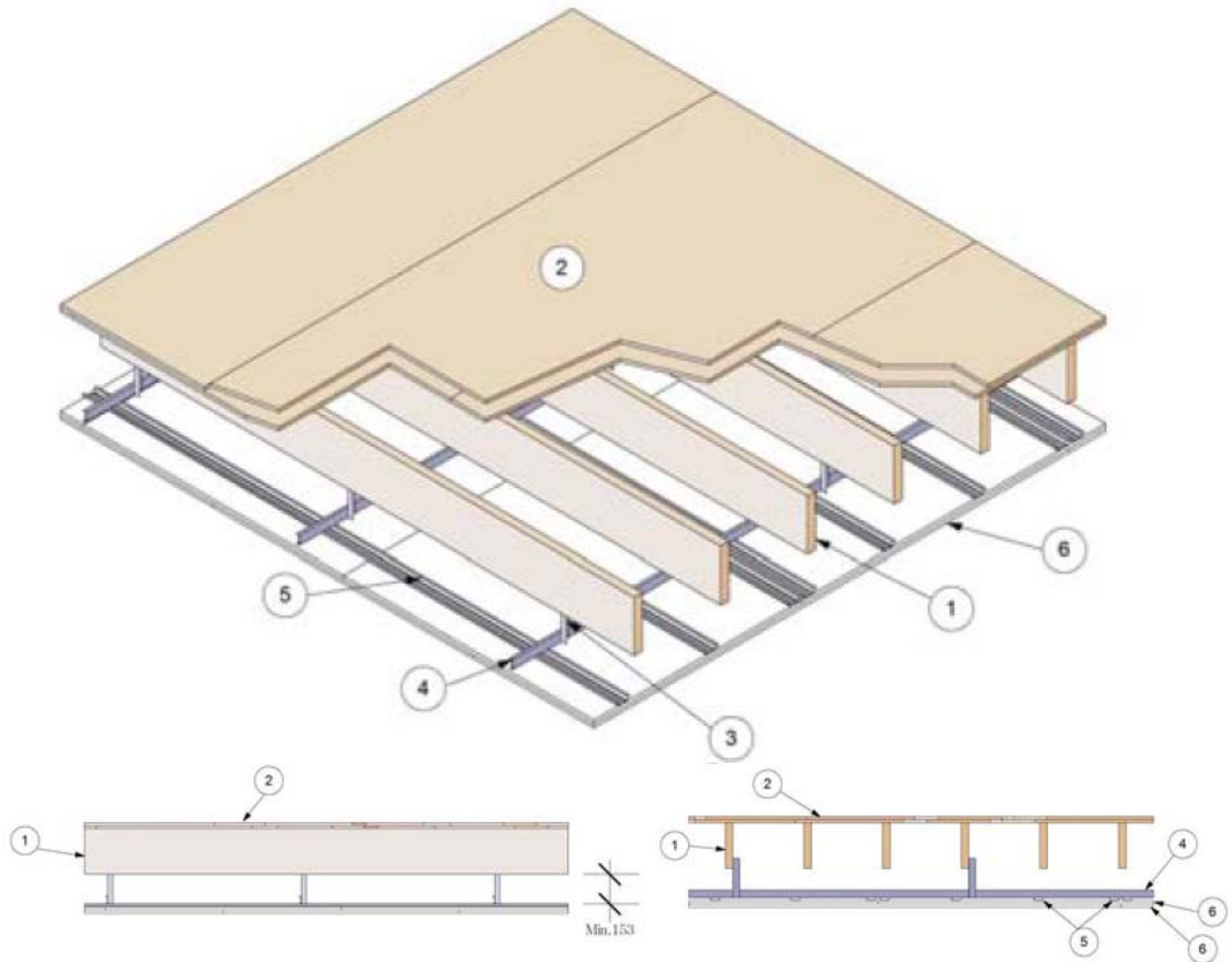


Knauf LLC
Design Number KL/GBF 60-03
Combustible Floor/Ceiling Assembly
Knauf Type X Fire Rated Gypsum Board (GW-TX)
ASTM E119 (2014)
Fire Resistance Rating: 1 Hour*



1. **JOIST:** Use min. 38 x 235 (2x10) lumber spaced max. 406mm (16 in.) on center (oc).
2. **FLOOR:** Use a floor assembly consisting of a subfloor, consisting of min. 12mm (15/32 in.) thick wood structural panel perpendicular to joist and finish floor, consisting of min. 15mm (19/32 in.) plywood perpendicular to joists with joints staggered from the subfloor.
3. **HANGERS:** Use the following hanger systems. All hangers shall be cut long enough to allow a min. of 152mm (6 in.) from the lowest protected joist (Item 1) to the top of the hat furring channel (Item 4). Hangers must be installed with a max. spacing of 1200mm along the length of the main channel (Item 4):
 - A. L-Angle – Install L-angle to joist using a min. of two Type W wood screws.

4. **CERTIFIED MANUFACTURER:** Knauf LLC

CERTIFIED PRODUCT: Steel Framing Members

MODEL: Main Channel 38/12/1.37/3000

MAIN CHANNEL: Attach min. 1.37mm thick, 38mm wide, and 12.5mm deep main channels spaced max. 2000mm oc to L-angle using two Knauf LN screws. Joints in main channel shall overlap min. 660mm and be connected by a min. of two Knauf LN screws.

5. **CERTIFIED MANUFACTURER:** Knauf LLC

CERTIFIED PRODUCT: Steel Framing Members

MODEL: Hat Furring Channel 67/22/0.5/3000

HAT FURRING CHANNEL: Attach Knauf hat furring channel (0.5mm thick, 57mm wide, 22mm deep) hat-shaped channel perpendicular to main channel (Item 4), spaced max. 407mm oc (16 in.), using two Knauf LN 4.2 x 13 wafer-head screws or equivalent. At locations of butt joints in the gypsum board, install two hat furring channels side by side. Joints in hat furring channel shall overlap a min. of 407mm (16 in.) and be attached to each other with a min. of four Knauf LN screws.

6. **CERTIFIED MANUFACTURER:** Knauf LLC

CERTIFIED PRODUCT: Type X Gypsum Board

MODEL: Knauf Type X (GW-TX)

GYPNUM BOARD: Install two layers of 15.9mm (1/2 in.) Knauf GW-TX Type X gypsum board. Attach base layer of gypsum board to the hat furring channel (Item 5) using 28.5mm (1-1/8 in.) fine-thread Type S screws spaced 203mm (8 in.) oc. Perimeter screws shall be spaced nominal 29mm (1-1/8 in.) from the gypsum board edges. Attach face layer of gypsum board perpendicular to hat furring channels using 47mm (1-7/8 in.) fine-thread Type S screws spaced 203mm (8 in.) oc. Install face layer with long edge joints offset 610mm (24 in.) from the long edge joints of the base layer. Perimeter screws shall be spaced nominal 1 in. from the gypsum board edges.

*Ceiling assembly provides one hour fire protection to structural members.

7. **CERTIFIED MANUFACTURER:** Knauf LLC

CERTIFIED PRODUCT: Joint Tape and Joint Compound

MODEL: Knauf Type X (GW-TX) Readygips Multi-Purpose Joint Compound

JOINT TAPE AND COMPOUND: (Not Shown) Exposed gypsum board joints are taped and floated using 51mm (2 in.) wide self-adhering Knauf joint tape. Apply a Level 2 finish of self-adhering Knauf joint tape and Knauf Readygips multi-purpose joint compound. Apply tape to face layer of gypsum board (Item 6) at all gypsum board joints. Apply joint compound in two coats to all exposed fastener heads and gypsum board joints.