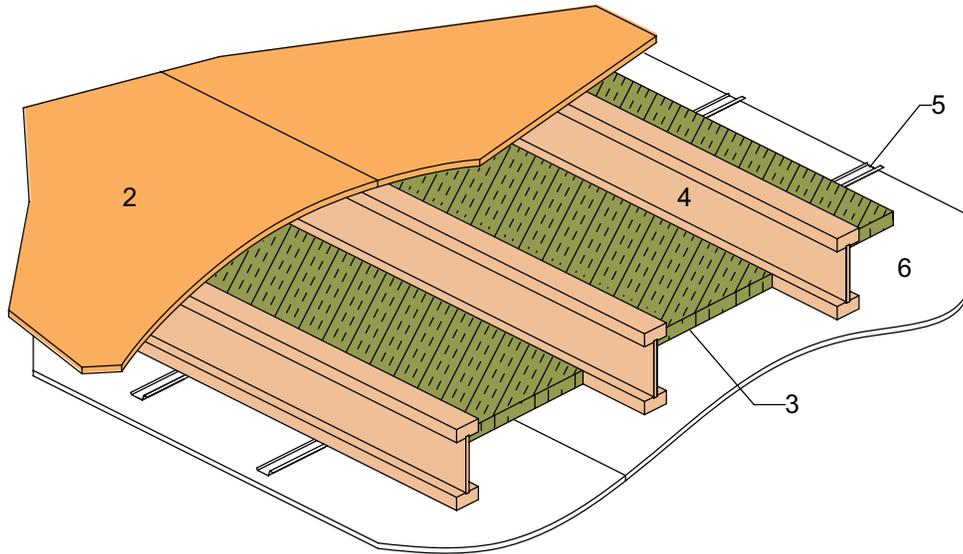


WIJ-1.2 One-Hour Fire-Resistive Ceiling Assembly

Floor^a/Ceiling - 100% Design Load - 1 Hour Rating - ASTM E 119 / NFPA 251



1. **Floor Topping (optional, not shown):** Gypsum concrete, lightweight or normal concrete topping.
2. **Floor Sheathing:** Minimum 23/32 inch thick tongue-and-groove wood sheathing (Exposure 1). Installed per code requirements with minimum 8d common nails and glued to joist top flanges with AFG-01 construction adhesive.
3. **Insulation:** Minimum 1-1/2 inch thick mineral wool insulation batts – 2.5 pcf (nominal), supported by resilient channels.
4. **Structural Members:** Wood I-joists spaced a maximum of 24 inches on center.
 Minimum I-joist flange depth: 1-1/2 inches Minimum I-joist flange area: 5.25 inches²
 Minimum I-joist web thickness: 7/16 inch Minimum I-joist depth: 9-1/4 inches
 See ASTM D 5055-07 for qualification requirements.
5. **Resilient Channels:** Minimum 0.019 inch thick galvanized steel resilient channels, attached perpendicular to I-joists using 1-5/8 inch long drywall screws. Resilient channels spaced 16 inches on center and doubled at each wallboard end joint extending to the next joist.
6. **Gypsum Wallboard:** Minimum 5/8 inch thick Type C gypsum wallboard installed with long dimension perpendicular to resilient channels and fastened to each channel with minimum 1 inch long Type S drywall screws. Fasteners spaced 12 inches on center in the field of the wallboard, 8 inches on center at wallboard end joints, and 3/4 inches from panel edges and ends. End joints of wallboard staggered.
7. **Finish System (not shown):** Face layer joints covered with tape and coated with joint compound. Screw heads covered with joint compound.

Fire Test conducted at Gold Bond Building Products Research Center
 Third Party Witness: Warnock Hersey International, Inc.

June 19, 1984
 Report No: WHI-694-0159

STC and IIC Sound Ratings for Listed Assembly

Without Gypsum Concrete				With Gypsum Concrete			
Cushioned Vinyl		Carpet & Pad		Cushioned Vinyl		Carpet & Pad	
STC	IIC	STC	IIC	STC	IIC	STC	IIC
51 ^b	46 ^b	51 ^b	64 ^b	60 ^b	50 ^b	60 ^b	65 ^b

^a This assembly may also be used in a fire-rated roof/ceiling application, but only when constructed exactly as described.

^b STC and IIC values estimated by David L. Adams Associates, Inc