# UL Product **iQ**<sup>™</sup>

# BXUVC.D832 - Fire-resistance Ratings

## BXUVC - Fire-resistance Ratings

See General Information for Fire-resistance Ratings

## Design No. D832

March 25, 2019

**Restrained Assembly Rating - SeeTable Below** 

**Unrestrained Assembly Rating - SeeTable Below** 

## **Unrestrained Beam Rating - SeeTable Below**

Load Restricted — Assembly evaluated in accordance with Working Stress Design methods,

for use under Limit States Design methods; refer to information under Guide <u>BXUVC</u>.



Beam - W200x36, min size.

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1. Normal-Density or Low-Density Concrete — Normal-density concrete, sand-gravel, 2400±50 kg/m<sup>3</sup>, 24 MPa nom compressive strength. Low-density concrete, expanded shale, clay or slate aggregate, 1800±50 kg/m<sup>3</sup>, 28 MPa nom compressive strength.

 2. Steel Floor Units — (CHWXC). Composite or noncomposite floor units alternating one 610 mm (min) wide fluted section to one 610 mm (min) wide cellular section. All units welded to supports at edges and centre of units. Adjacent units buttonpunched 900 mm OC along side joints. Cellular section 1.22/1.52 mm. Fluted sections 1.52 mm. The thickness of the floor units may be reduced to a min of 0.91/1.22 mm (cellular) and 0.76 mm (fluted). Allowable loading to be calculated on basis of noncomposite design for spans with trench-header ducts. In other spans, allowable loading may be calculated on the basis of noncomposite design for noncomposite or composite floor units.

3. Joint Cover - 50 mm wide cloth adhesive tape applied following the contour of the steel floor units.

4. Trench Header - 460 mm wide, 65 mm deep of 1.52 mm painted steel provided with 6 mm thick painted steel cover plates.

5. Access Openings - As required, with grommets.

6. Header Duct – 170 mm wide, 38 mm deep of 1.91 mm painted steel top section and 1.52 mm painted steel bottom section provided with 100 mm diameter holes.

• 7. Spray-Applied Fire-Resistive Material - (see table below) - (CHPXC). Applied to final untamped thicknesses as shown in Table to steel surfaces which must be clean and free of dirt, loose scale and oily deposits. The steel surfaces to be wetted prior to material application. Blaze-Shield, Type DC/F or Blaze-Shield, Type II to have a min average density of 210 kg/m<sup>3</sup> with a min individual value of 175 kg/m<sup>3</sup>. Blaze-Shield, Type HP to have a min average dry density of 352 kg/m<sup>3</sup> with a min individual value of 304 kg/m<sup>3</sup>. When fluted steel deck is used, the area between the steel deck and the beam top flange shall be filled. For method of density determination, refer to General Information Section under heading "Fire Resistance Ratings". **ISOLATEK INTERNATIONAL** 

### Spray-Applied Fire-Resistive Material Thickness, mm

Restrained Assembly Rating, h	Unrestrained Assembly Rating, h	Unrestrained Beam Rating, h	Crest	Valley	Cellular Plate	Beam	Crest	Valley	Cellular Plate	Beam
2	1	1	13	10	10	13	13	10	10	13
2	2	2	13	10	10	30	13	10	10	13
3	1-1/2	1-1/2	18	13	13	24	16	11	11	24
3	3	3	18	13	13	38	16	11	11	38

Normal-Density Concrete

Low-Density Concrete

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