

Fire Ratings



Figure 1.5.1: **ASC STEEL DECK- (UL) UNDERWRITERS LABORATORY FIRE RESISTANCE**

UL Design Number	ANSI/UL 263	Support Type
	Fire Resistance Ratings Restrained and Unrestrained Assemblies (hrs)	Beam / Joist
P225	Restrained Assembly Ratings — 1 and 1½ Hr. Unrestrained Assembly Ratings — 1 and 1½ Hr	Beam-W6x12min, Joist- 20min depth
P230	Restrained Assembly Rating — 1 and 1½ Hr. Unrestrained Assembly Rating — 1 and 1½ Hr	Beam-W6x12min, Joist- 20min depth
P518	Restrained Assembly Rating — 1 Hr. Unrestrained Assembly Rating — 1 Hr	Joists - Cee-shaped sections, min 8 in. deep with 1-9/16 in. flanges and 9/16 in. lips, made from No. 18 gage or heavier, Steel truss - chords shall be min of 18 ga. and web sections a min of 20 ga. min depth of 8 in.
P701	Restrained Assembly Rating — ¾, 1, 1½ or 2 Hr. Unrestrained Assembly Rating — ¾, 1, 1½ or 2 Hr	Beam-W16x16min, Joist-20in joist girders
P711	Restrained Assembly Ratings — 1, 1½ or 2 Hr. Unrestrained Assembly Ratings — 1, 1½ or 2 Hr	Beam - W6x16 min size. , Joist girders -20 in. min depth, Joists Types 10J4, 10H4, 12J4, 14J7 or 14K4 min size.
P717	Restrained Assembly Rating — 1, 1½ or 2 H Unrestrained Assembly Rating — 1, 1½ or 2 H	Beam - W6x16 min size, Joist - 10H4, 14J7, 12K3 or 16K3 min sizes.
P719	Restrained Assembly Rating — 1, 1½, 2 or 3 Hr. Unrestrained Assembly Rating — 1, 1½ or 2 Hr	Beams -W6x16 min , Joist-10 K1 min, Joist girders -20 in. min depth and 13 lb/lin ft min weight.
P723	Restrained Assembly Ratings — 1, 1½, 2 and 3 Hr Unrestrained Assembly Ratings — 1, 1½, 2 and 3 Hr	Beams- W6x16 , Joists -min 10K1 or 12K5
P726	Restrained Assembly Rating — ¾, 1, 1½ or 2 Hr Unrestrained Assembly Rating — ¾, 1, 1½, or 2 Hr	Beam-W6X16 min, Joist -10K1 min , Joist girders - 20 in. min depth
P732	Restrained Assembly Ratings — 1, 1½, 2 or 3 Hr Unrestrained Assembly Ratings — ¾, 1, 1½, 2 or 3 Hr	Beam - Min W6x16 or W8x28 , Joist - 10K1 or 16K2 min, or 12K3 or 12K5 min size
P734	Restrained Assembly Ratings — ¾, 1, 1½ or 2 Hr Unrestrained Assembly Ratings — ¾, 1, 1½ or 2 Hr	Beam - W6x16min, Joist - 12J4, 14J7 or 14K4 min, Joist girders-20 in. min, any LH-Series joist may be used.
P739	Restrained Assembly Ratings — 1, 1½ and 2 Hr Unrestrained Assembly Ratings — 1, 1½ and 2 Hr	Beam- W6x16 min , Joist - 10H4, 14J7, 10K1 or 12K3 min.
P740	Restrained Assembly Ratings — 1, 1½ & 2 Hr Unrestrained Assembly Ratings — ¾, 1, 1½ & 2 Hr	Beam -W6x16 min , Joist 10K1 or 16K2 min or 12K3 min
P741	Restrained Assembly Ratings — 1, 1½ or 2 Hr Unrestrained Assembly Ratings — 0, 1, 1½ or 2 Hr	Beam - Min W6x16, Joist - Min 10K1

Table Notes:

- P2XX have suspended acoustical ceilings with an exposed grid system
- P3XX have mineral or fiber board applied to the underside of the deck
- P4XX have suspended gypsum board
- P7XX have (SFRM) Spray Applied Fire Resistive Material applied to the deck
- P9XX have not SFRM on the deck but it is require on the beams and joists
- P9XX includes lightweight insulating concrete
- The designer shall refer to the UL Fire Resistance directory for a detailed list of components in the fire rated assembly listing.

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Figure 1.5.1: **ASC STEEL DECK- (UL) UNDERWRITERS LABORATORY FIRE RESISTANCE**

UL Design Number	Panel Type (gages)					Coatings		Side-Lap Fastening				Support Fastening			Fire Protection	Lightweight Insulating Concrete
	DGB-36, B-36	DGN-32, N-32	DG2W-36, 2W-36	DG3W-36, 3W-36	CP-1 3/8, CP-32	Galvanized	PrimeShield®	Screws	Button Punch	DeltaGrip®	Welds	Screws	PAF (Pins/Nails)	Welds	(SRFM) Spray Applied Fire Resistant Material (Fiber or Cementitious)	
P225	✓	✓				✓	✓			✓	✓			✓	✓	
P230	✓					✓	✓			✓	✓			✓	✓	
P518	✓				✓	✓	✓	✓		✓		✓			✓	
P701	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P711	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P717	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	
P719	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓			✓	✓	
P723	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓			✓	✓	
P726	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P732	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	
P734	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P739	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	
P740	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P741	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	

- ASC Steel Deck does not assume responsibility for adhesion of any spray-applied fireproofing material, surface preparation, cleaning, or other treatments of the deck surface.
- "Gray" prime painted deck is supplied for application of spray-applied fireproofing.

- Please contact ASC Steel Deck for galvanizing options.

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P742	Restrained Assembly Ratings - 1, 1½ or 2 Hr. Unrestrained Assembly Ratings - 1, 1½ or 2 Hr	Beam-W6x16, Joist - 12J4 or 14J7 min, Joist girders-20 in. min depth and 13 lb/lin ft min weight, any LH-Series joist may be used.
P743	Restrained Assembly Ratings — 1, 1½ and 2 Hr Unrestrained Assembly Ratings — 1, 1½ and 2 Hr	Beam - W6x16 min size, Joist -10H4, 14J7, 10K1 or 12K3 min
P815	Restrained Assembly Rating- 1, 1½, 2 Hrs Unrestrained Assembly Rating- 1, 1½, 2 Hr	Beam W6x16 min size, Joist-10K1 or 12K3 min size.
P819	Restrained Assembly Rating — 1, 1½ or 2 Hr. Unrestrained Assembly Rating — 1, 1½ or 2 Hr	Beam - W6x16 min size, Joist 10K1 or 12K3
P908	Restrained Assembly Ratings — 1, 1½ or 2 Hr. Unrestrained Assembly Rating — 0, 1½, or 2 Hr	Beam- W6x16, W8x10, W8x18 or W8x28 min, Joists - 10K1, 12J4, 14K4 or 16K3 min, Joist girders-20 in. min depth and 13 lb/lin ft min weight
P920	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam - W8x10, W8x17, W6x16 or W8x28 min, Joists- 10K1, 12J4, 12K5 or 14K3 min
P921	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr Unrestrained Beam Rating — 1, 1½ or 2 Hr	Beam - W6X16 or W8X10 beam, Joist girders - 20 in. min depth and 13 lb/lin ft min weight. 12K5 or heavier steel joist may be used as secondary support
P922	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam - W6x16, or W8x28 min, Joists- 10K1 min with steel bridging angles required per SJI specifications.
P925	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam- W6X16 or W8X10, Joists -12K5 min, Joists or Joist girders 10K1- 20 in. min depth and 13 lb/lin ft min weight
P927	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam-W6x16, W8x10 or W8x1, Joists-12J4, 14K4 or 16K3 min, Joist girders-20 in. min depth and 13 lb/lin ft min weight
P928	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam - W6X16 or W8X10, Joist girders-20 in. min depth and 13 lb/lin ft min weight
P930	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam - W8x28 min size steel beam; or steel joists welded or bolted to end supports.
P936	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr Restricted Load Condition	Beam - W6x16 or W8x28 min size, Joists 10K1 or 16K2 min size with a max tensile stress of 30,000 psi or 12K3 or 12K5 min size with a max tensile stress of 24,000 psi.
P937	Restrained Assembly Rating — 1, 1½ or 2 Hr Unrestrained Assembly Rating — 0 Hr	Beam-W8x28 min, Joists-10K1 min

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P742	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	
P743	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P815	✓	✓				✓	✓		✓	✓	✓			✓	✓	
P819	✓	✓				✓	✓	✓	✓	✓	✓			✓	✓	
P908	✓	✓				✓	✓			✓	✓			✓		✓
P920	✓	✓	✓			✓	✓			✓	✓			✓		✓
P921	✓	✓	✓		✓	✓	✓			✓	✓			✓		✓
P922	✓	✓				✓	✓		✓	✓	✓			✓		✓
P925	✓		✓		✓	✓			✓	✓	✓			✓		✓
P927	✓	✓	✓		✓					✓	✓			✓		✓
P928	✓	✓	✓		✓					✓	✓			✓		✓
P930		✓			✓					✓	✓			✓		✓
P936	✓	✓	✓		✓					✓	✓			✓		✓
P937	✓	✓	✓		✓					✓	✓			✓		✓

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