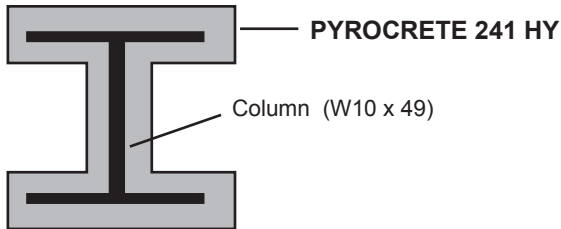


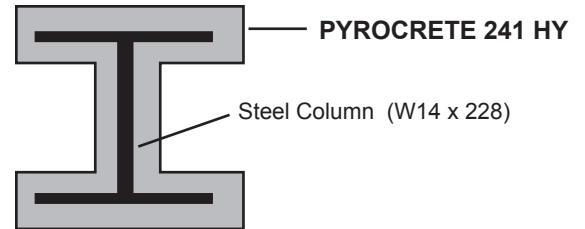
COLUMN DESIGNS

U.L. DESIGN Y-718



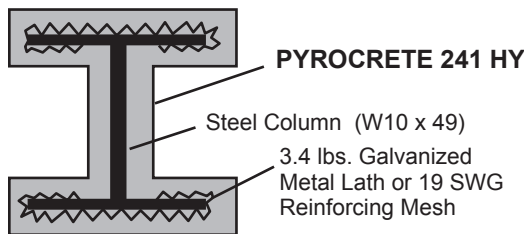
Rating	Thickness	
3/4 hour	7/16 in.	(11mm)
1 hour	9/16 in.	(14mm)
1-1/2 hours	13/16 in.	(20mm)
2 hours	1 in.	(25mm)
3 hours	1-3/8 in.	(35mm)
4 hours	1-3/4 in.	(44mm)

U.L. DESIGN Y-720



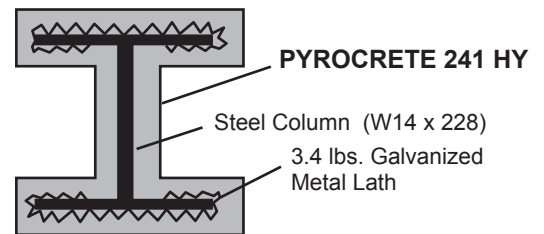
Rating	Thickness	
1-1/2 hours	3/8 in.	(10mm)
2 hours	9/16 in.	(15mm)
3 hours	1 in.	(26mm)

U.L. DESIGN Y-719



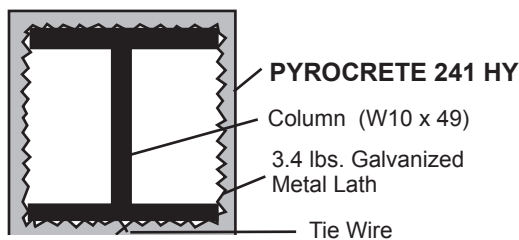
Rating	Thickness	
3/4 hour	3/8 in.	(10mm)
1 hour	1/2 in.	(13mm)
1-1/2 hours	5/8 in.	(16mm)
2 hours	13/16 in.	(21mm)
3 hours	1-1/8 in.	(29mm)
4 hours	1-7/16 in.	(37mm)

U.L. DESIGN Y-722



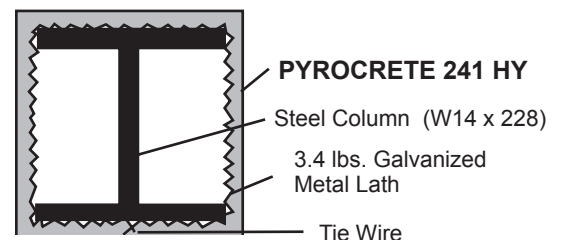
Rating	Thickness	
1-1/2 hours	3/8 in.	(10mm)
2 hours	9/16 in.	(15mm)
3 hours	1 in.	(26mm)

U.L. DESIGN Y-721



Rating	Thickness	
3/4 hour	1/2 in.	(13mm)
1 hour	9/16 in.	(15mm)
1-1/2 hours	11/16 in.	(18mm)
2 hours	7/8 in.	(22mm)
3 hours	1-1/8 in.	(29mm)
4 hours	1-7/16 in.	(37mm)

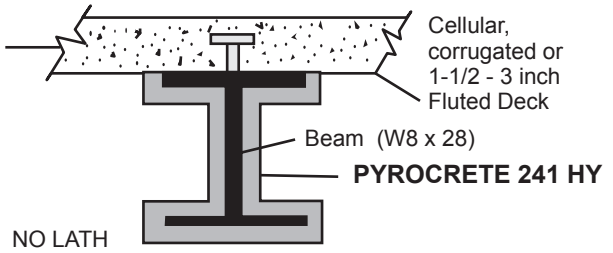
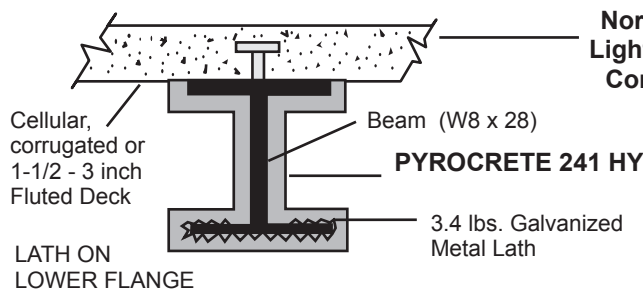
U.L. DESIGN Y-723



Rating	Thickness	
1-1/2 hours	3/8 in.	(10mm)
2 hours	9/16 in.	(15mm)
3 hours	1 in.	(26mm)

BEAM DESIGNS

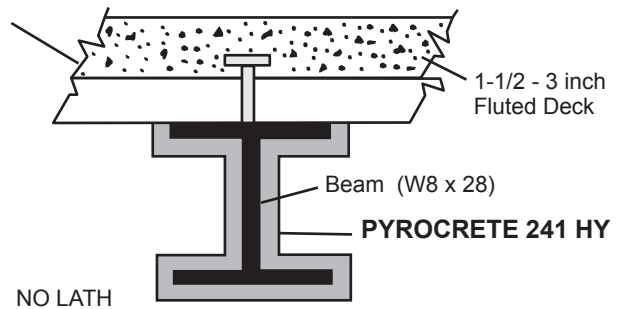
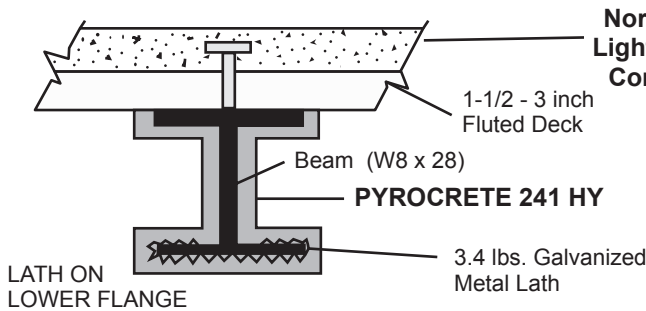
U.L. DESIGN N-785



Rating	Thickness		Thickness	
	Restrained		Unrestricted	
1 hour	7/16 in.	(12mm)	7/16 in.	(12mm)
1-1/2 hours	1/2 in.	(13mm)	1/2 in.	(13mm)
2 hours	3/4 in.	(19mm)	13/16 in.	(21mm)
3 hours	1-1/8 in.	(29mm)	1-1/4 in.	(32mm)
4 hours	1-9/16 in.	(40mm)	1-13/16 in.	(46mm)

Rating	Thickness		Thickness	
	Restrained		Unrestricted	
1 hour	11/16 in.	(18mm)	11/16 in.	(18mm)
1-1/2 hours	3/4 in.	(19mm)	3/4 in.	(19mm)
2 hours	1 in.	(25mm)	1-1/16 in.	(27mm)
3 hours	1-3/8 in.	(34mm)	1-1/2 in.	(38mm)

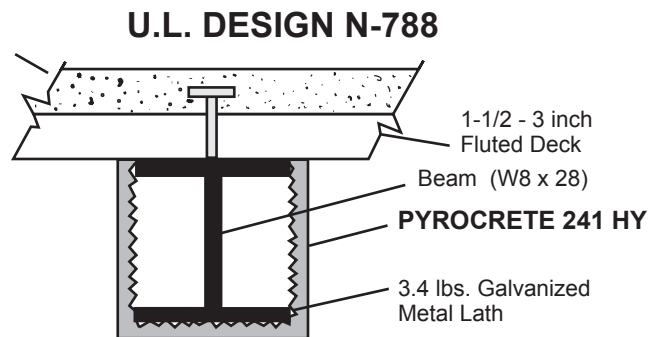
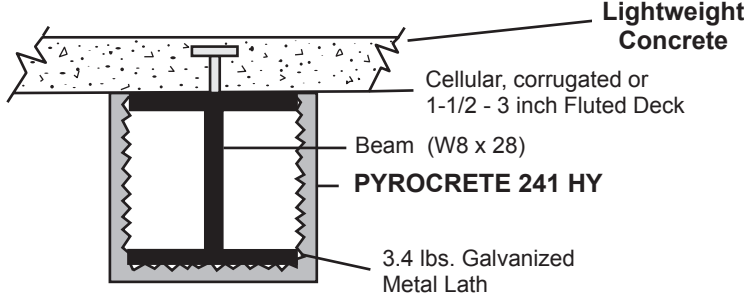
U.L. DESIGN N-787



Rating	Thickness	
	Restrained & Unrestricted	
1-1/2 hours	1/2 in.	(13mm)
2 hours	11/16 in.	(18mm)
3 hours	15/16 in.	(24mm)

Rating	Thickness	
	Restrained & Unrestricted	
1-1/2 hours	3/4 in.	(19mm)
2 hours	11/16 in.	(24mm)
3 hours	1-3/16 in.	(30mm)

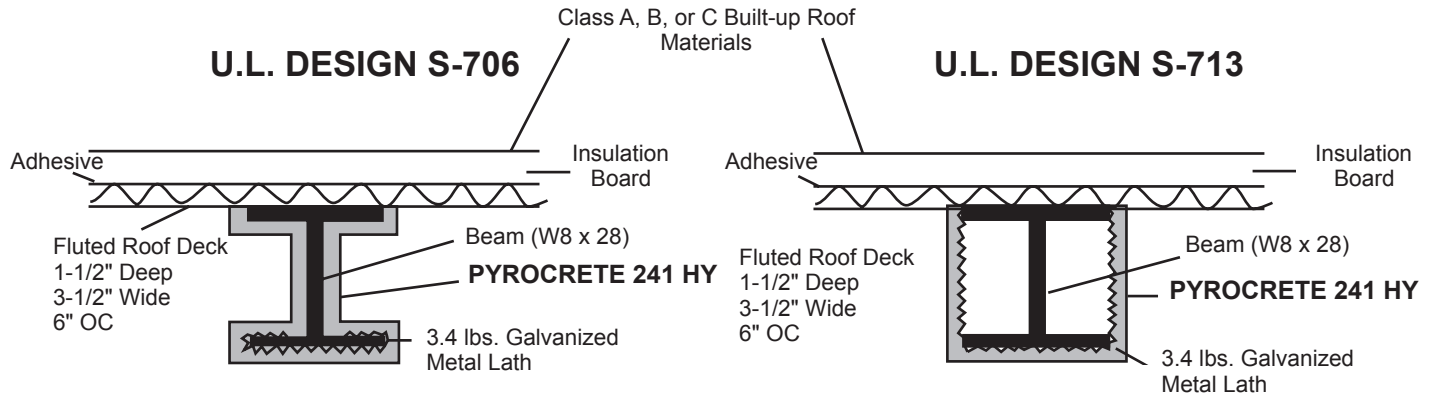
U.L. DESIGN N-786



Rating	Thickness		Thickness	
	Restrained		Unrestricted	
1 hour	7/16 in.	(12mm)	7/16 in.	(12mm)
1-1/2 hours	1/2 in.	(13mm)	1/2 in.	(13mm)
2 hours	3/4 in.	(21mm)	13/16 in.	(21mm)
3 hours	1-1/8 in.	(29mm)	1-1/4 in.	(32mm)
4 hours	1-9/16 in.	(40mm)	1-13/16 in.	(46mm)

Rating	Thickness	
	Restrained & Unrestricted	
1-1/2 hours	1/2 in.	(13mm)
2 hours	11/16 in.	(18mm)
3 hours	15/16 in.	(24mm)
4 hours	1-7/16 in.	(37mm)

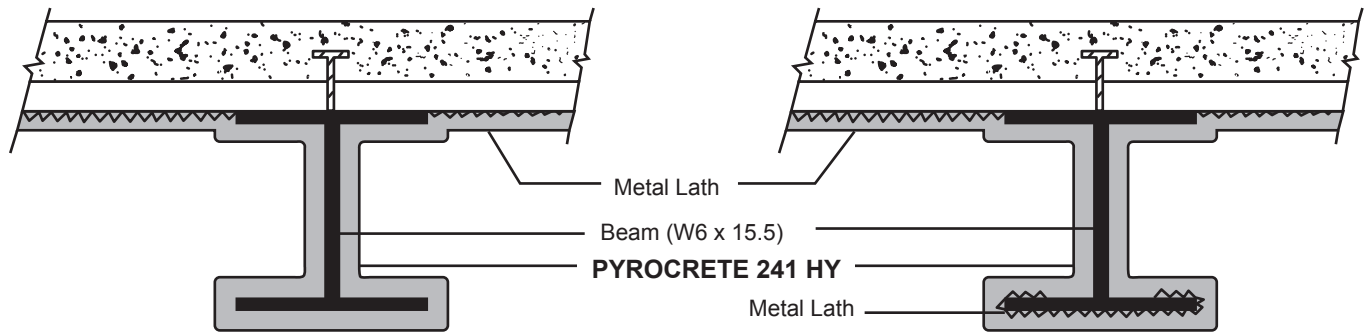
BEAM DESIGNS



Rating	Thickness	
	Restrained & Unrestrained	
1 hour	7/16 in.	(12mm)
1-1/2 hours	11/16 in.	(17mm)
2 hours	1-1/16 in.	(27mm)
3 hours	1-13/16 in.	(46mm)

DECK DESIGNS

U.L. DESIGN D-744



Restrained Assembly Rating	Unrestrained Assembly Rating	Unrestrained Beam Rating	Lathed Beam	Thickness	
				Beam Without Lath	Beneath Floor
2 hours	1 hour	1 hour	11/16 in.	15/16 in.	7/8 in.
3 hours	1-1/2 hours	1-1/2 hours	1 in.	1-1/4 in.	7/8 in.
4 hours	2 hours	2 hours	1-1/4 in.	1-1/2 in.	7/8 in.
4 hours	3 hours	3 hours	1-5/8 in.	1-7/8 in.	7/8 in.
4 hours	3 hours	4 hours	1-15/16 in.		7/8 in.

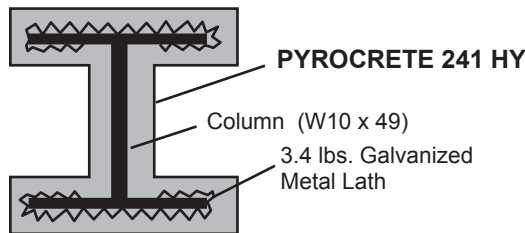
UL 1709 RAPID TEMPERATURE RISE RATINGS

The temperature of the fire in which rapid temperature rise ratings are derived, reaches 2000°F within five minutes of exposure. The fire temperature is maintained at this level throughout the rating period. This fire exposure was developed to provide a means to evaluate fire resistive assemblies intended for use in areas which may develop fire temperatures at a faster rate than assemblies tested under Standard UL 263. Systems classified in this category

are also investigated to determine their ability to retain a degree of fire resistance when exposed to various environments. Materials are subjected to standardized environmental tests which include simulated aging, ultraviolet light, salt spray exposure, the cycling effects of water freezing temperatures / dryness and exposure to air containing carbon dioxide and sulfur dioxide.

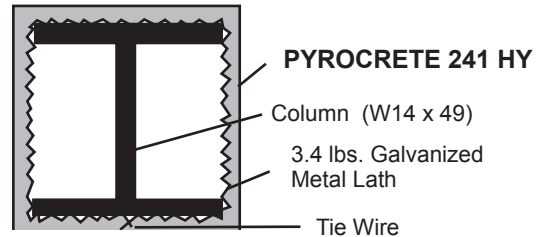
COLUMN DESIGNS

U.L. DESIGN XR-701



Rating	Thickness	
3/4 hour	1/2 in.	(13mm)
1 hour	11/16 in.	(17mm)
1-1/2 hours	15/16 in.	(24mm)
2 hours	1-1/8 in.	(29mm)
3 hours	1-3/8 in.	(35mm)
4 hours	1-9/16 in.	(40mm)

U.L. DESIGN X-702



Rating	Thickness	
3/4 hour	5/8 in.	(16mm)
1 hour	11/16 in.	(17mm)
1-1/2 hours	7/8 in.	(22mm)
2 hours	1 in.	(25mm)
2-1/2 hours	1-1/8 in.	(29mm)
3 hours	1-1/4 in.	(32mm)
4 hours	1-1/2 in.	(38mm)