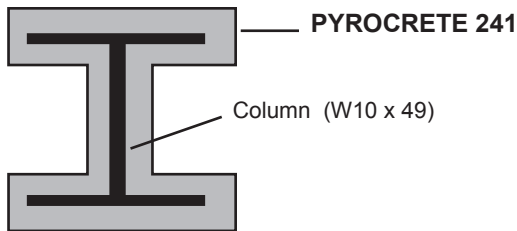


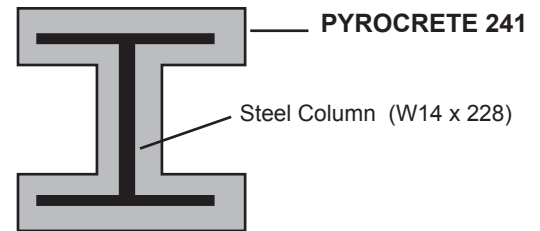
## COLUMN DESIGNS

### U.L. DESIGN X-732



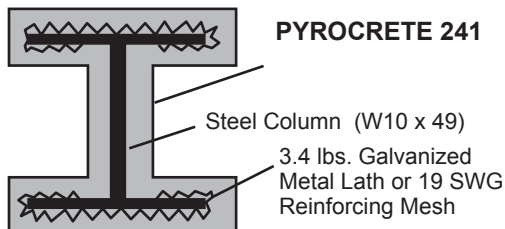
Rating	Thickness	
3/4 hour	7/16 in.	(11mm)
1 hour	9/16 in.	(14mm)
1-1/2 hours	13/16 in.	(20mm)
2 hours	1 in.	(25mm)
3 hours	1-3/8 in.	(35mm)
4 hours	1-3/4 in.	(44mm)

### U.L. DESIGN X-735



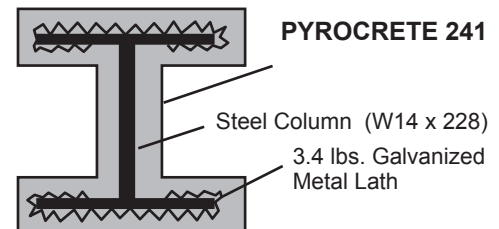
Rating	Thickness	
1-1/2 hours	3/8 in.	(10mm)
2 hours	9/16 in.	(15mm)
3 hours	1 in.	(26mm)

### U.L. DESIGN X-733



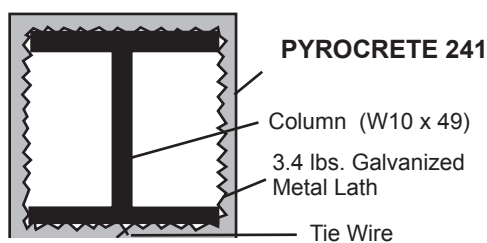
Rating	Thickness	
3/4 hour	3/8 in.	(10mm)
1 hour	1/2 in.	(13mm)
1-1/2 hours	5/8 in.	(16mm)
2 hours	13/16 in.	(21mm)
3 hours	1-1/8 in.	(29mm)
4 hours	1-7/16 in.	(37mm)

### U.L. DESIGN X-743



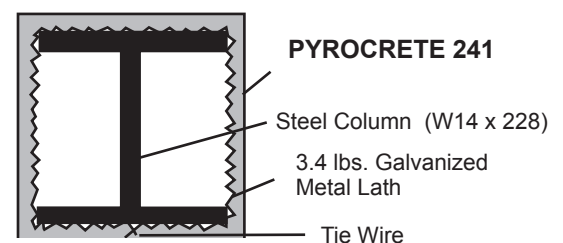
Rating	Thickness	
1-1/2 hours	3/8 in.	(10mm)
2 hours	9/16 in.	(15mm)
3 hours	1 in.	(26mm)

### U.L. DESIGN X-736



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)

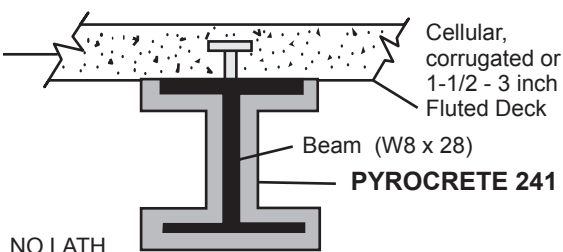
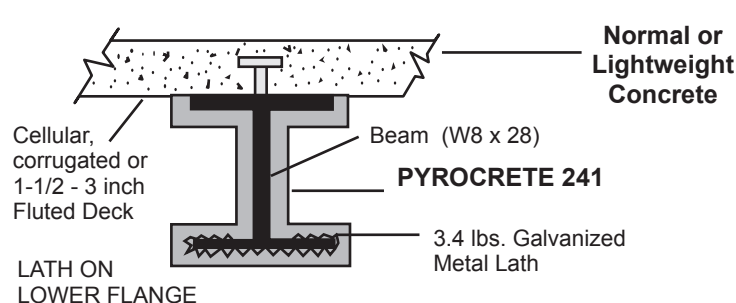
### U.L. DESIGN X-744



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

## BEAM DESIGNS

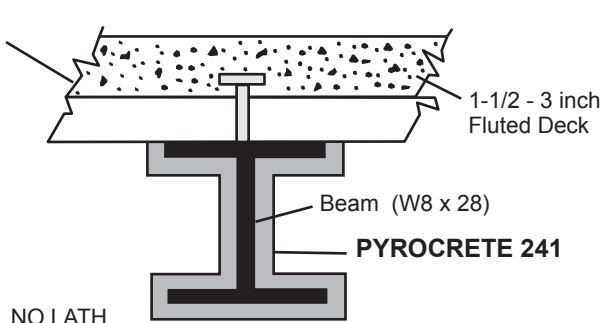
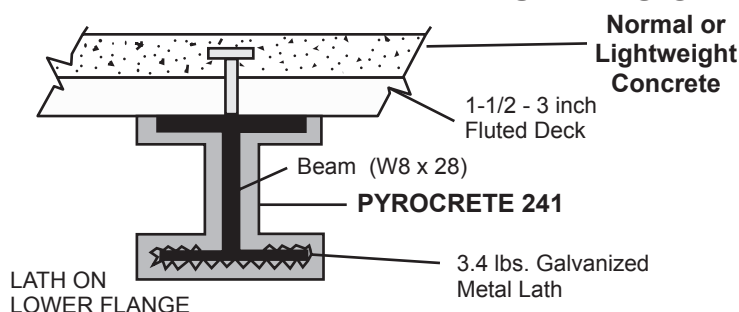
### U.L. DESIGN N-715



Rating	Thickness		Thickness	
	Restrained		Unrestrained	
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		Unrestrained	
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)

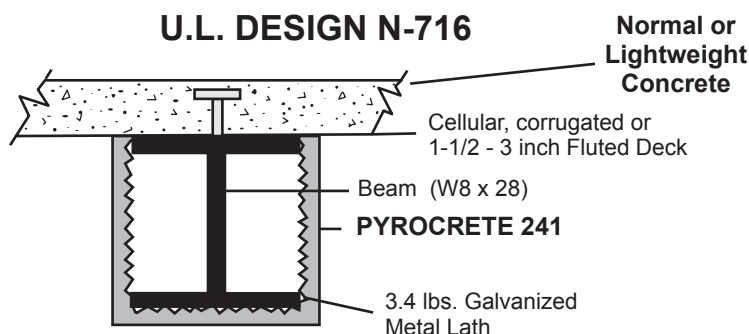
### U.L. DESIGN N-717



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

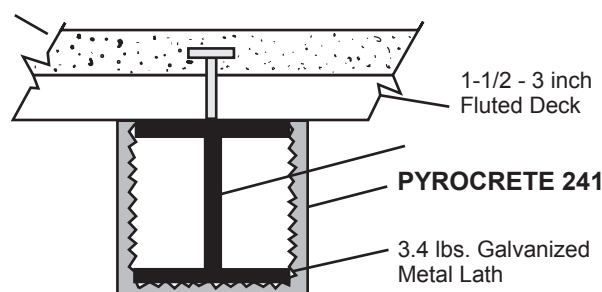
Rating	Thickness	
	Restrained & Unrestrained	
1-1/2 hours	3/4 in.	(19mm)
2 hours	11/16 in.	(24mm)
3 hours	1-3/16 in.	(30mm)

### U.L. DESIGN N-716



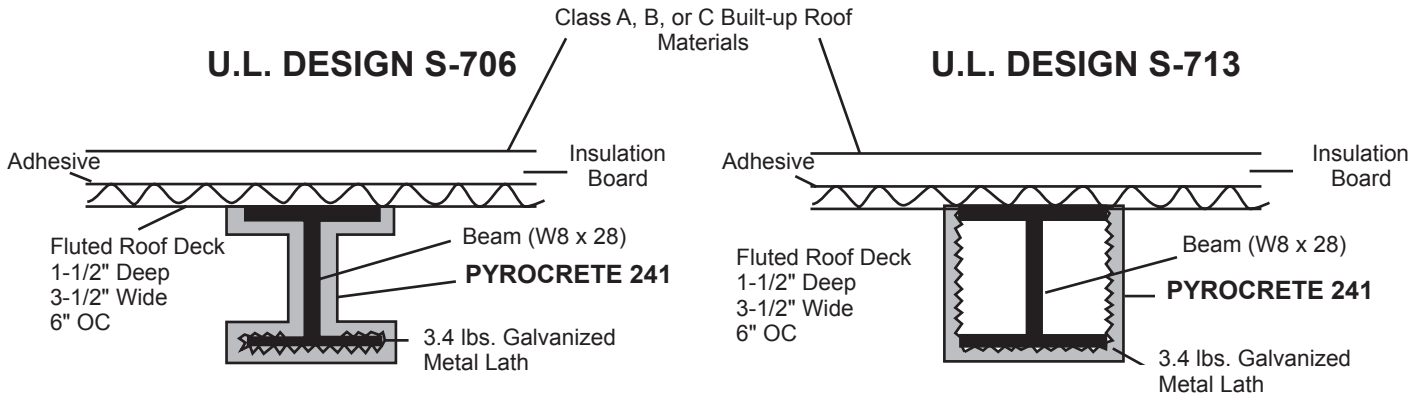
Rating	Thickness		Thickness	
	Restrained		Unrestrained	
1 hour	7/16 in.	(12mm)	7/16 in.	(12mm)
1-1/2 hours	1/2 in.	(13mm)	1/2 in.	(13mm)
2 hours	3/4 in.	(21mm)	13/16 in.	(21mm)
3 hours	1-1/8 in.	(29mm)	1-1/4 in.	(32mm)
4 hours	1-9/16 in.	(40mm)	1-13/16 in.	(46mm)

### U.L. DESIGN N-718



Rating	Thickness	
	Restrained & Unrestrained	
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)

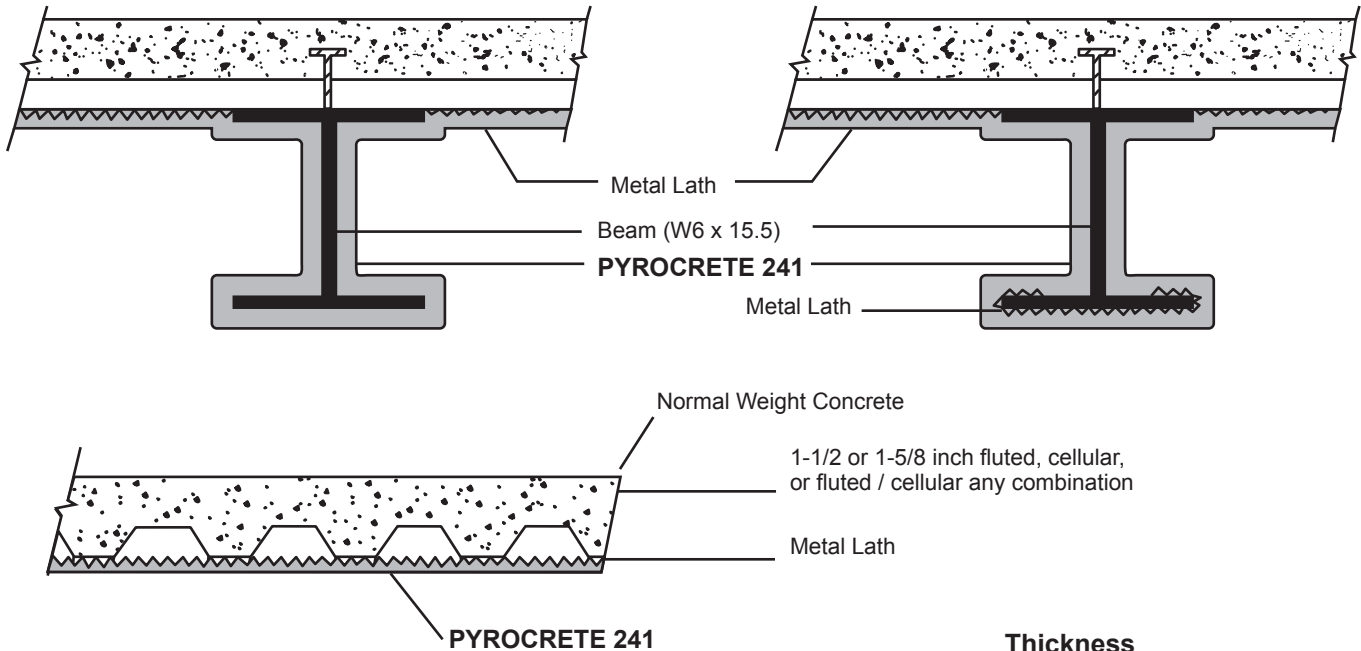
BEAM DESIGNS



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		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.

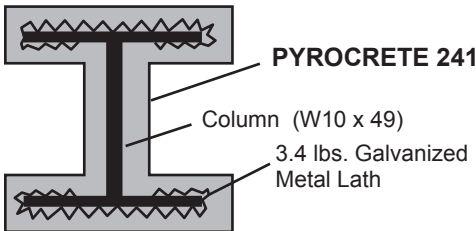
UL 1709 RAPID TEMPERATURE RISE RATINGS

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 cat-

egory 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.

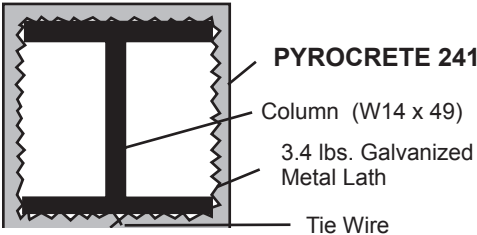
COLUMN DESIGNS

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)
2-1/2 hours	1-5/16 in.	(33mm)
3 hours	1-3/8 in.	(35mm)
4 hours	1-9/16 in.	(40mm)

U.L. DESIGN XR-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)