

TABLE 720.1(1)-continued MINIMUM PROTECTION OF STRUCTURAL PARTS BASED ON TIME PERIODS FOR VARIOUS NONCOMBUSTIBLE INSULATING MATERIALS^m

STRUCTURAL PARTS TO BE PROTECTED	ITEM NUMBER	INSULATING MATERIAL USED	MINIMUM THICKNESS OF INSULATING MATERIAL FOR THE FOLLOWING FIRE-RESISTANCE PERIODS (inches)			
			4 hour	3 hour	2 hour	1 hour
5. Reinforcing steel in reinforced concrete columns, beams girders and trusses	5-1.1	Carbonate, lightweight and sand-lightweight aggregate concrete, members 12" or larger, square or round. (Size limit does not apply to beams and girders monolithic with floors.)	1½	1½	1½	1½
		Siliceous aggregate concrete, members 12" or larger, square or round. (Size limit does not apply to beams and girders monolithic with floors.)	2	1½	1½	1½
6. Reinforcing steel in reinforced concrete joists ¹	6-1.1	Carbonate, lightweight and sand-lightweight aggregate concrete.	1¼	1¼	1	¾
	6-1.2	Siliceous aggregate concrete.	1¾	1½	1	¾
7. Reinforcing and tie rods in floor and roof slabs ¹	7-1.1	Carbonate, lightweight and sand-lightweight aggregate concrete.	1	1	¾	¾
	7-1.2	Siliceous aggregate concrete.	1¼	1	1	¾

For SI: 1 inch = 25.4 mm, 1 square inch = 645.2 mm², 1 cubic foot = 0.0283 m³, 1 pound per cubic foot = 16.02 kg/m³.

- a. Reentrant parts of protected members to be filled solidly.
- b. Two layers of equal thickness with a ¾-inch airspace between.
- c. For all of the construction with gypsum wallboard described in Table 720.1(1), gypsum base for veneer plaster of the same size, thickness and core type shall be permitted to be substituted for gypsum wallboard, provided attachment is identical to that specified for the wallboard and the joints on the face layer are reinforced, and the entire surface is covered with a minimum of 1/16-inch gypsum veneer plaster.
- d. An approved adhesive qualified under ASTM E 119 or UL 263.
- e. Where lightweight or sand-lightweight concrete having an oven-dry weight of 110 pounds per cubic foot or less is used, the tabulated minimum cover shall be permitted to be reduced 25 percent, except that in no case shall the cover be less than ¾ inch in slabs or 1½ inches in beams or girders.