

**Table 9.7: Automatic Sprinkler System Requirements**

ITEMS	REQUIREMENTS
<b>39. DESIGN CRITERIA FOR CLASS I TO IV STORED IN SINGLE OR DOUBLE ROW RACKS TO A STORAGE HEIGHT OF 6.7 M TO AND 7.6 M. (WITHOUT SOLID SHELVES)</b>	<p>i. The automatic Sprinkler Design criteria for Class I to Class IV stored on single or double row racks with storage height up to 6.7 m to 7.6 m (without solid shelves) shall be as per <b>Table 9.7.T. with Area of sprinkler operation of 2000 ft<sup>2</sup> (186m<sup>2</sup>)</b></p> <p>ii. <b>Figure 9.22</b> is applicable for all design criteria in <b>Table 9.7.T.</b> except where in-rack sprinklers requirement are mandatory.</p> <p>iii. The fire pump capacities indicated is for high temperature ceiling sprinkler for storage height of 7.6 m.</p>

**Table 9.7.T: Class I to Class IV stored on Single and Double row racks with storage 6.7 m to 7.6 m**

AISLE WIDTH & ENCAPSULATION	COM-MODITY CLASS	IN RACK SPRINKLERS	CEILING SPRINKLER DESIGN DENSITY , Gpm/ft <sup>2</sup> (mm/min)					
			WITH IN RACK SPRINKLERS		WITHOUT IN RACK SPRINKLERS			
			SINGLE OR DOUBLE ROW RACKS		SINGLE OR DOUBLE ROW RACKS			
			HIGH TEMPERATURE CEILING SPRINKLER & ORDINARY TEMPERATURE RACK SPRINKLER	ORDINARY TEMPERATURE CEILING SPRINKLER & ORDINARY TEMPERATURE RACK SPRINKLER	HIGH TEMPERATURE CEILING SPRINKLERS	ORDINARY TEMPERATURE CEILING SPRINKLERS	PUMP CAPACITY WITH HOSE DEMAND	PUMP CAPACITY WITH HYDRANTS
<b>1.2 M ENCAPSULATED</b>	I	1 LEVEL	0.30 (12.2)	0.35 (14.3)	-	-	750 gpm	1250 gpm
	II	1 LEVEL	0.30 (12.2)	0.35 (14.3)	-	-	750 gpm	1250 gpm
	III	1 LEVEL	0.35 (14.3)	0.39 (15.9)	-	-	1000 gpm	1500 gpm
	IV	1 LEVEL	0.47 (19.1)	0.55 (22.4)	-	-	1250 gpm	1500 gpm
<b>1.2 M NOT ENCAPSULATED</b>	I	No Need			0.32 (13.0)	0.35 (14.3)	1250 gpm	1500 gpm
	II	No Need			0.38 (15.5)	0.44 (17.9)	1500 gpm	2000 gpm
	III	No Need			0.43 (17.5)	0.49 (20.0)	1500 gpm	2000 gpm
	IV	1 LEVEL	0.39 (15.9)	0.44 (17.9)	-	-	1000 gpm	1500 gpm
<b>2.4 M ENCAPSULATED</b>	I	1 LEVEL	0.24 (09.8)	0.27 (11.0)	-	-	750 gpm	1250 gpm
	II	1 LEVEL	0.24 (09.8)	0.27 (11.0)	-	-	750 gpm	1250 gpm
	III	1 LEVEL	0.28 (11.4)	0.32 (13.0)	-	-	750 gpm	1250 gpm
	IV	1 LEVEL	0.39 (15.9)	0.45 (18.3)	-	-	1000 gpm	1500 gpm
<b>2.4 M NOT ENCAPSULATED</b>	I	No Need			0.29 (11.8)	0.28 (11.4)	1000 gpm	1500 gpm
	II	No Need			0.32 (13.0)	0.37 (15.0)	1250 gpm	1500 gpm
	III	No Need			0.37 (15.0)	0.42 (17.1)	1250 gpm	2000 gpm
	IV	1 LEVEL	0.32 (13.0)	0.37 (15.0)	-	-	1000 gpm	1500 gpm