

## Croatia

Fire protection measures for big shopping malls and big office buildings are usually designed according to NFPA 101, as are buildings not regulated by Croatian laws.

### **Ordinance on Fire Protection of Hospitality Buildings (OG 100/99)**

Article 9: Escape routes may be extended from 35 m to 55 m if the building is sprinklered.

Article 16: Dead-end corridors may be extended from 10 m to 15 m if the building is sprinklered

Article 32: Sprinklers are required in rooms larger than 800 m<sup>2</sup> or with more than 300 people.

Article 43: A sprinkler system is required in underground car parks.

### **Ordinance on Fire Protection of Warehouses (OG 93/08)**

Warehouses are categorised by area:

- small warehouse – fire compartment up to 1000 m<sup>2</sup>
- medium warehouse – fire compartment from 1000 m<sup>2</sup> to 3000 m<sup>2</sup>
- large warehouse – fire compartment from 3000 m<sup>2</sup> to 6000 m<sup>2</sup>
- warehouse with fire compartment above 6000 m<sup>2</sup>

Warehouses are also categorised by height:

- classic storage – maximum storage height 9 m
- high-rack storage – storage height above 9 m

The different fire protection options are shown in the table

O smoke extraction system

V fire detection system

S sprinkler system or another appropriate fire protection system

TABLE 1

<b>Fire load up to 1 GJ / m<sup>2</sup></b>			
	Small warehouse	Medium warehouse	Large warehouse
Classic storage		O or V or S	O and V, or S
High-rack storage	S	S	O and S
<b>Fire load above 1 GJ / m<sup>2</sup> and up to 2 GJ / m<sup>2</sup></b>			
	Small warehouse	Medium warehouse	Large warehouse
Classic storage	O and V, or S	O and V, or S	O and S
High-rack storage	S	O and S	O and S
<b>Fire load above 2 GJ / m<sup>2</sup></b>			
	Small warehouse	Medium warehouse	Large warehouse
Classic storage	O and V, or S	O and S	O and S
High-rack storage	O and S	O and S	O and S

Note:

Warehouses with a fire compartment area greater than 6000 m<sup>2</sup> must have a fire alarm system and a sprinkler system.

### **Ordinance on Flammable Liquids (OG 54/99)**

Fixed fire suppression systems are required for some flammable liquids.

### **Ordinance on Fire Resistance (OG 29/13 and 87/15)**

This ordinance has a table with the maximum areas depending on the number of storeys. Most industrial buildings are single-storey and for those sprinklers are typically required when the area exceeds 3,200 m<sup>2</sup>. If the building has to have R30 fire resistance the threshold area for sprinklers increases to 5,400 m<sup>2</sup>.

ZPS 1 is a detached building accessible on three sides, up to 7 m high, with up to 50 occupants and with one compartment of up to 400 m<sup>2</sup>.

ZPS 2 is a detached or terraced building, up to 7 m high, with up to 100 occupants and three compartments of up to 400 m<sup>2</sup>.

ZPS 3 is a building up to 7 m high, with up to 300 occupants.

ZPS 4 is a building up to 11 m or four storeys high with up to 300 occupants and compartments up to 400 m<sup>2</sup>.

ZPS 5 is a building with a floor up to 22 m high, or a hospital, nursing home psychiatric institution, nursery, kindergarten, prison or anywhere occupied by people with reduced mobility or that has more than 300 occupants.

Tall buildings are those with a floor above 22 m.