Summary for Slovenia

In 2019 Slovenia introduced a revised fire safety code with new incentives for sprinklers.

1.3 Fire resistance of external walls of the building and unprotected surfaces
(5) If the distance between the building and the relevant boundary is greater than the height of the external wall and greater than 10 m, there are no requirements for the fire resistance of the external wall facing the relevant border. For buildings with an installed sprinkler system in terms of total protection, this distance may be at least half the height of the external wall or at least 5 m.

1.4 Methods for calculation of permitted unprotected surface areas in external walls
(3) When the whole building has a sprinkler system installed, the distance from the relevant boundary may be halved, however, but must not be less than 1 m. Alternatively, instead of reducing the distance, the proportion of unprotected surfaces can be doubled.

High-rise healthcare buildings must have sprinklers, as set out in Table 7.

Table 7: Fire resistance of the load-bearing structure for buildings. Unless explicitly stated otherwise, the requirements apply to the fire resistance for non-combustible materials.

Number of above-ground floor levels Intended purpose of the building or its part (CC-SI)	[1]	Ground floor up to 600 m^2 gross surface area	(P+1) up to 600 m^2 gross surface area	(P or P+1) above 600 m^2 gross surface area	P+2 to P+3	P+4 to P+5	P+6 to high-rise buildings
112 – Two- and more dwelling buildings	A	N/A	R60[3]	R60[3]	R60[3]	R60[4]	R60
	B	N/A	R30[3]	R30[3]	R30[3]	R60[3]	R60[4]
11301 Residential buildings with service residences for the elderly	A	R30[3]	R60[4]	R60[4]	R60	R90	R90
	B	R30[3]	R30[3]	R30[4]	R60[4]	R60	R90
121 – Hospitality buildings	A	nc or R30[3]	R30[3]	R30[3]	R60[4]	R90	R90
1241 – Stations, terminals, communications and related buildings 1261 – Culture and entertainment buildings 1262 – Museums and libraries 1263 – Educational and scientific research buildings 1265 – Sports halls 123 – Commercial and other service buildings 1272 – Religious buildings, cemetery buildings	B	nr	nr	R30[3]	R60[4]	R60	R60
125 – Industrial buildings and warehouses below 250 MJ/m^2	A	nr	nr	nc or R30[3]	R60[4]	R60	R60
	B	nr	nr	nc or R30[3]	R60[3]	R60[4]	R60
122 – Offices and administrative buildings 1242 – Car park buildings 125 – Industrial buildings and warehouses above 250 MJ/m^2 to 1 000 MJ/m^2 1271 – Non-residential agricultural buildings	A	nr	nc or R30[3]	R30[3]	R60[4]	R60	R60
	B	nr	nr	nc or R30[3]	R60[3]	R60[4]	R60
125 – Industrial buildings and warehouses above 1 000 MJ/m^2 and high-stack warehouses	A	nc or R30[3]	R30[3]	R60[4]	R90	R90	R90[2]
	B	nc or R30[3]	nc or R30[3]	R60[3]	R60	R90	R90
1264 – Hospital and institutional care buildings where people can evacuate without assistance 11302 – Other residences for communities	A	R60[4]	R60[4]	R60[4]	R60	R90	R90[2]
	B	R60[3]	R60[3]	R60[3]	R60[4]	R60	R90
1264 – Hospital and institutional care buildings where people cannot evacuate without assistance	A	R60	R60	R60	R60[2]	R90[2]	R90[2]
	B	R60[4]	R60[4]	R60	R6	R60	R90
1274 – Other non-residential buildings, not specified elsewhere	A	R30	R30	R60	R60	R60	R90
	B	R30[3]	R30[4]	R30[4]	R30	R30	R60

Nc – Non-combustible load-bearing structure
Nr – No requirements
N/A – Not applicable
[1] A: Load-bearing capacity of structure R – if there is no sprinkler system in the building in terms of total protection.
B: Load-bearing capacity of structure R – if a sprinkler system is installed in the building in terms of total protection in accordance with the requirements of Section 2.9
[2] Compulsory installation of a sprinkler system in terms of complete protection.
[3] Load-bearing structure made of wood is permitted.
[4] Load-bearing structure made of wood protected by fire-resistant and non-combustible materials in accordance with M-HFHHolzR is permitted.

Maximum compartment sizes can be increased if sprinklers are fitted, as set out in Table 9.

Table 9: Maximum permissible gross floor surface area (m^2) of fire compartments depending on the purpose and installed AFD systems.

Intended purpose of the building or part of the building (CC-SI)	No AFD and no sprinkler system	AFD	Sprinkler system [1]	Fire compartment can include multiple floor levels
121 – Hospitality buildings 1261 – Buildings for public entertainment 1262 – Museums and libraries	1 000	3 600	8 000[2]	Yes
122 – Offices and administrative buildings 1271 – Non-residential agricultural buildings	1 000	3 600	8 000	Yes
123 – Commercial and other service buildings 1241 – Stations, terminals, communications and related buildings 1263 – Educational and scientific research buildings 1265 – Sports halls 1272 – Buildings used as places of worship and for religious activities	1 000	3 600	10 000[2]	Yes
1242 – Underground car park buildings 1242 – Enclosed car park buildings	500	4 000	8 000	Yes
1242 – Open car park buildings	8 000	nr	nr	Yes
125 – Industrial buildings and warehouses (<300 MJ/m^2), except high-stack warehouses	2 000	10 000	nr	Yes
125 – Industrial buildings and warehouses (>300 MJ/m^2 and <1 000 MJ/m^2), except high-stack warehouses	1 000	5 000	20 000	Yes
125 – Industrial buildings and warehouses (>1 000 MJ/m^2), except high-stack warehouses	400	2 000	8 000	No
11301 – Residential buildings with service residences for the elderly 1264 – Hospital and institutional care buildings where people can evacuate without assistance 1274 – Other non-residential buildings, not specified elsewhere	1 000	3 600	5 000	No

11302 – Other residences for communities 1264 – Hospital and institutional care buildings where people cannot evacuate without assistance	np	1 000	8 000	No
High-stack warehouses (HSW)	np	1 000	8 000	No

[1] Sprinkler system is installed in the building in terms of total protection in accordance with the requirements of Section 2.9

[2] AFD (Automatic fire detection) also required.

Nr—No restrictions

Np—Not permitted

In calculating the fire load it is necessary to consider the average fire load for each fire compartment.

Sprinklers are also required to prevent external fire spread, as set out in 2.4. They are also required in buildings with wooden facades, as set out in Table 11.

Table 11: Wooden facades

Groups of buildings CC-SI:	Maximum number of above-ground floors (buildings without complete protection with sprinkler system)	Maximum number of above-ground floors (buildings with complete protection with sprinkler system)
12112 - Inns, restaurants and bars	2	4
122 - Offices and administrative buildings	3	5
123 - Commercial and other service buildings	2	4
124 - Transport and electronic communications buildings	2	4
125 – Industrial buildings and warehouses under 1,000 MJ/m^2	3	6
1261 - Buildings for public entertainment	2	4
1262 - Museums and libraries	3	6
1263 - School, university and research buildings	3	6
1265 - Sports halls	2	4
127 - Other non-residential buildings	2	4

Measures to prevent vertical external fire spread are not needed if sprinklers are fitted:
2.4.3.1

(1) When there is a separation of floor levels using a structure with fire resistance of at least the same level as required in Sections 2.2 and 2.3 of this technical guideline and the external walls cannot be accessed by the fire brigade from the outside, then the unprotected external surface areas in the top fire compartment must be vertically separated by fire-resistant parapets at least 1 m in height, or an overhang at least 1.5 m wide, or a combination of both totalling at least 1.5 m (see Figure 2.3). The reaction to fire of such a facade must correspond to at least A2-s1, d0.

(2) The requirements from the previous paragraph may be disregarded if a sprinkler system is installed in the bottom and the top fire compartment.

Table 16 permits a reduction in the fire resistance classification of skylights in rooms with over 200 occupants from A2-s1, d0 to B-d0.

Similarly, reductions in classifications for internal linings are available with sprinklers, as in Table 20.

Table 20: Minimum reaction-to-fire classification for internal linings in rooms for large numbers of occupants.

Room size	No sprinkler system		Sprinkler system	
	Walls and ceilings	Floor	Walls and ceilings	Floor
Up to 1 000 m^2	B-s1, d0[1]	B_{fl}-s2	C-s2, d0*	C_{fl}-s2
Over 1 000 m^2	A2-s1, d0	$A2_{fl}$-s1	B-s1, d0	B_{fl}-s1

Reductions in classifications for walls and ceiling linings are also available, as in Table 21.

Table 21: Requirements for wall and ceiling decorative foils

Intended purpose of room	No sprinkler system	Sprinkler system
Rooms for large numbers of occupants	A2-s1, d0	B-s1, d0
Protected stairways and protected corridors	A2-s1, d0	A2-s1, d0

Fans for smoke and heat evacuation systems have a lower specification with sprinklers.

2.8.2.3 Fans for Mechanical Smoke and Heat Exhaust
(2) In the case of a built-in sprinkler system, the fans must meet the requirement of at least F200 for two-hour operation, and in the case of the absence of a sprinkler system, the fans must comply with the F400 requirement for at least two-hour operation.

In clause 2.8.4 there are relaxations in the design requirements for smoke exhaust systems in buildings fitted with sprinklers.

Slovenia has adopted the German high-rise model code (Muster-Hochhaus-Richtlinie), which requires sprinklers in most buildings higher than 22m.

2.11.6 High-rise buildings
Notwithstanding other requirements from Section 2, the requirements of MHHR fully apply for high-rise buildings.

2.11.12 Automatic mechanical car parks
If an automatic mechanical car park is planned to accommodate more than 50 cars it must have a sprinkler system installed.