

Storage Of Idle Wood Pallets On Shelving Over Shipping / Receiving Docks

Storage of idle wood pallets is a serious fuel load for all occupancies. Even in small numbers a catastrophic loss is possible. The nature of the construction accelerates fire growth due to good airflow through the pallets. This results in high heat release.

The **recommended method for storage of** idle wood pallets storage is outside or in a separate detached building adequately removed from principal buildings. Alternatively, idle wood pallets shall be protected by automatic sprinklers in accordance with the current edition of NFPA 13 - Standard for the Installation of Sprinkler Systems, when stored indoors.

If the above storage options are not feasible then the follow this protection guideline when wood pallets are stored on suspended shelving above shipping / receiving docks. An idle pallet is defined as any pallet not supporting other materials (no minimum time limit).

CONTROL MODE DENSITY AREA PROTECTION

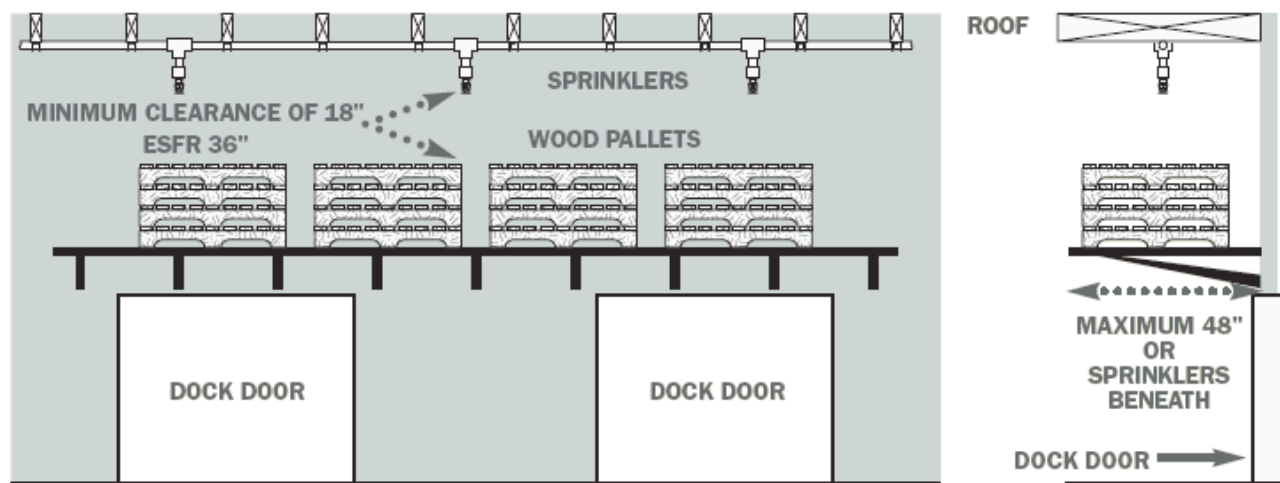
	Maximum Storage Height in Feet	Minimum K - Factor	Minimum Sprinkler Density	Area of Sprinkler Design	
				286°F Heads	165°F or 212°F Heads
On Floor Storage Only	Up to 6 feet	8.0	0.20	2,000	3,000
	Up to 8 feet	11.2	0.45	2,500	4,000
	8 ft up to 12 ft	11.2	0.60	3,500	6,000
	12 ft up to 20 ft	11.2	0.60	4,500	N/A
	Up to 20 feet	16.8	0.60	N/A	2,000

ESFR PROTECTION

Storage Location	Minimum K-Factor	Maximum Storage Height	Maximum Ceiling / Roof Height	Minimum Pressure at ESFR Head
On-floor or on Racks (no solid shelving)	14.0	25	30	50
		25	32	60
		35	40	75
	16.8	25	30	35
		25	32	42
		35	40	52
	22.4	25	30	25
		30	35	35
		35	40	40
	25.2	25	30	15
		30	35	20
		35	40	25

This storage arrangement is limited to shipping and receiving dock walls only, with noncombustible wall and roof construction. The shelving shall be solid and of noncombustible construction. In addition, shelves shall not be greater than 48 inches wide. Shelf widths over 48 inches are considered an obstruction to overhead sprinkler discharge patterns and will require sprinkler protection below the shelf (in-rack automatic sprinklers). Storage of idle pallets on suspended shelving shall only be one pallet deep; however, storage can be along the entire wall (see diagram below).

Sprinkler protection below shelving greater than 48 inches wide shall be in accordance with Ordinary Hazard Group 2 per NFPA 13. Head spacing shall be limited to a maximum of 12 feet, utilizing 165° F temperature rated heads. Shelves requiring more than 20 sprinkler heads beneath shall have a separate indicating control valve and drain.



The illustrations, instructions and principles contained in the material are general in scope and, to the best of our knowledge, current at the time of publication. No attempt has been made to interpret any referenced codes, standards, regulations or law. Please refer to the appropriate code-, standard-, regulation-making authority or jurisdictional law for interpretation or clarification.