



## Idle pallet fires

Pallets are a must for transportation of your raw materials and/or finished goods. They need to be stored correctly inside buildings or outside, and eventually be kept dry for sanitary purposes.

They can be made of wood or plastic and one truck can carry up to 600 pallets (which is about 12 tons of wood), equivalent to the energy of 3 tons of fuel oil. These figures are well above the total consumption of fuel in your house over one year.

The number of pallets can vary a lot according to your activities, but piles of pallets of 20 m by 20 m, 5 m high equivalent to two trucks full are not uncommon in the industry.





## Aggravating factors

### Use

The stock of idle pallets can be significant, because many customers require pallets with specific characteristics (US, EUR, etc.).

### Design

A pallet burns quickly and easily due to its shape and inner air circulation. It's energy is released in a short period of time, which is totally different to a fire of a solid block configuration. The expected temperatures will be much higher.

When **stored outside**, a pallet fire will cause intense heat radiation and expose the buildings.

Idle pallets stored **inside buildings** release the same energy. In addition, they are a challenge to the sprinkler systems which require higher densities. The high temperatures may cause structural collapse of the building and hinder intervention by fire fighters.

### Ignition factor

The small hair like splinters on the surface of wooden pallets enable a rapid ignition in case of careless cigarette disposal, hot works in the area, etc.



Imagine this pile on fire !



## Precautions

### Use

- › Prefer wooden pallets to plastic pallets due to their lower fire load
- › Study the real need of idle pallets storage on site
  - Can the stock be reduced to the strict minimum?
  - Can they be obtained on a just in time basis from a subcontractor?

### Separation

- › Maintain a large open space between all pallets and buildings. If this is not possible, foresee a sprinkler protection.
- › Limit pallet piles to 15 m x 15 m
- › Inside buildings, prefer rooms with fire walls to a mixed storage with critical materials such as raw materials or finished products
- › Do not store pallets close to public accessible areas. Be careful about your neighbour's activities



- › Limit the exposure to the buildings by storing the pallets along fire resistant walls without openings

### Height limit

- › Inside buildings, the storage height must be compatible with the sprinkler density. We recommend 1.8 m for wooden pallets and 1.2 m for plastic pallets

### Prevention

- › Strictly respect “No-Smoking” policy and follow the recommendations appearing on the Cutting & Welding permits
- › Avoid storing idle pallets in racks

### Protection

- › Set up hydrant protection all around the outside storage areas and make sure they are accessible in all wind directions
- › Provide buildings with sprinkler protection

