



**ISO/TC 51 "Pallets for unit load method of materials handling"**  
Secretariat: **BSI**  
Committee manager: **Luzajic Petar Mr**



**ISO-TC51\_N870\_Plastic\_pallet\_petrochemical\_industry (supporting doc for ISO\_NP 18995)**

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**Description**

This is a supporting document for the NWIP in document N 868.

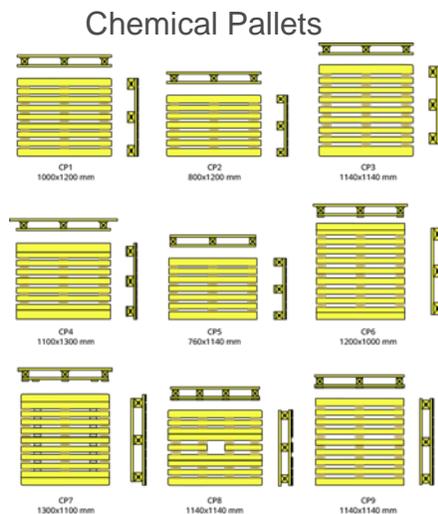
# PLASTIC PALLET PETROCHEMICAL INDUSTRY

## BACKGROUND

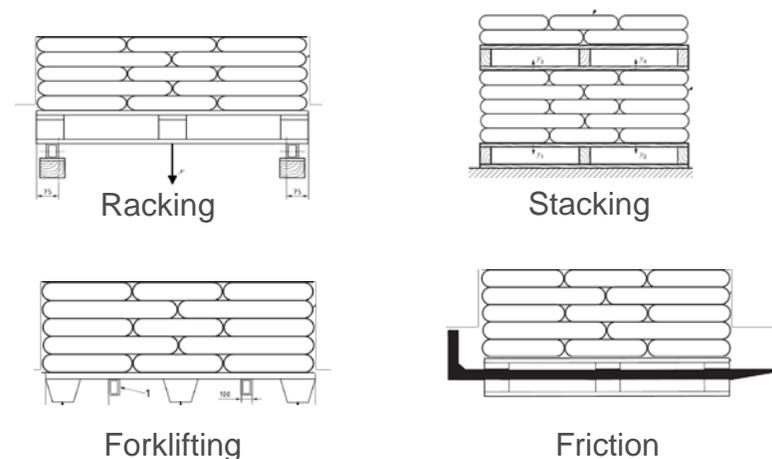
Petrochemical industry in MEAF uses around 10 Million wooden pallets annually

Wood is imported to MEAF and the price and availability are heavily impacted by major world events such as COVID

Plastic pallets on the other hand has major advantage over wooden pallets such as light weight and recyclability



## LOAD REQUIREMENTS



## RAW MATERIALS

The pallets shall be manufactured from plastic materials such as high density polyethylene, polypropylene, or any other suitable polymeric materials

- Stabilizers against ultraviolet radiation in order to avoid deterioration of the physical properties of the pallets during continuous exposure
- Reinforcing and non-reinforcing fillers can be used
- Recycled polymeric materials can be used providing that the final product meets all the requirements of the standard
- Fire retarding agent can be added in order for the pallet to withstand direct fire exposure, if required by the customer.

## OTHER REQUIREMENT

- The pallet should be handled by both pallet truck and forklift truck
- The pallet should be suitable for both chain and roller conveyor system
- Pallets are required to be stored outside the warehouse in the sun where temperature is expected to reach around 50 °C
- The pallet should not creep (permanent deformation) under the load
- Pallet and the load on it should not slip from fork lifter during unexpected sudden stop
- Safety factor for the load capacity determination = 2.0