

UPM CARGO HANDLING MANUAL – TIMBER

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Safety first



UPM's clear objective is zero fatal and serious accidents. We strive to reduce and eliminate accidents under our control through continuous improvement and effective risk management. We expect the same high safety culture from our business partners and their employees. Co-operating together in safety we can improve the safety of the whole supply chain ensuring safe workplace for all the workers.

For loading areas and warehouses one of the highest risk is collision between pedestrians and vehicles. Therefore any unnecessary and extra walking in loading areas and warehouses is prohibited. It is important to make yourself visible for others if there is a need to be outside of vehicle and communicate, for example with eye contact, to make sure that others have noticed you.

Personal protective equipment (PPE) has to be worn when in loading areas and warehouses. The required PPE varies between sites but the minimum requirement for PPE are

- High visibility vest or clothes
- Safety shoes

Additional can be required

- hard hat or bump cap
- safety goggles
- in case of noise, ear protection.

For chemical loading/unloading the required PPE depends on the chemical and can be, for example, chemical resistant clothes and hard hat with full face visir. Required PPE are instructed with signs at the gate of the site.

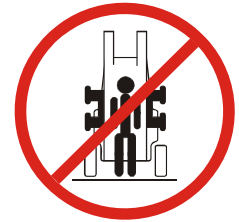
- 811 Lasketaan ei saa suorittaa ilman asianmukaista henkilösuojelua
- 814 The loading shall not be carried out without the proper personal protective equipment
- 818 Bei Aus-/Beladung ist das Tragen von Sicherheitsausrüstung Pflicht
- 818a Погрузочные работы должны выполняться персоналом только при наличии средств индивидуальной защиты
- 818a Käsittelyt ja lataukset tullee välttää olosuhteiden vaarallisuuden vuoksi henkilökohtainen suojustus
- 818a Kaubatoimet tuleb teha ainult sobivateks kaitsuvateks vahetega!

- 81 Kulluajan suojeleminen:
 1. heijastinvaate
 2. turvasaappa
 3. silmäsuojaus
 4. kolmeppolaki (happo)
- 814 Safety equipments for the driver:
 1. reflective vest
 2. safety shoes
 3. light eye protection
 4. hard hat protection
- 818 Sicherheitsausrüstung für Fahrer:
 1. Warnweste
 2. Sicherheitsstiefel
 3. Schutzbrille
 4. Schutzhelm
- 818a Средства индивидуальной защиты для водителя:
 1. светоотражающий жилет/ куртка
 2. защитные ботинки
 3. защитные очки
 4. каска
- 818a Spreng- och säkerhetsutrustning för bilföraren:
 1. kontrastfärgad kläddress
 2. tryggskor
 3. skyddsglasögon
 4. hård hatt
- 818a Avarustused juhtimiseks:
 1. heiknemest
 2. turvasaapad
 3. silmakaitsjad
 4. kolmeppolaki (happo)



Following general handling safety cautions are valid for each manual sections:

While driving in the loading area the addressed speed limit has to be obeyed and extra attention to be paid for other traffic. The speed limits are site specific and are instructed with signs.



Driving and walking under hanging loads is prohibited.



During truck loading/unloading the fork lift driver has to pay extra attention to know where the truck driver is while loading at all times. It is prohibited for the truck driver to come into the trailer/container while fork lift is in it and the fork lift driver has to make sure the truck driver is not in the trailer/container before driving into the trailer/container.



It is important to follow the capacities whether it is fork lift, truck, or loading ramp etc.



All the instructions has to be followed to ensure safe working to prevent accidents. In many cases the reason for the instruction to be done has been an accident or near miss.



Everyone is obligated to report any accidents, near misses or observations. With reporting we can prevent accidents and improve safety.

1. TIMBER PACKAGE SPECIFICATIONS

The purpose of packaging is to protect the product against mechanical wear, tear, moisture and dirt. Plywood and wooden boards are always palletized. The boards are bound together mostly with plastic bands or straps, either wrapped or unwrapped.

Label

Timber package label content in detail:

1. UPM Logo
2. Product/trade name
3. Product dimensions and amount: Thickness, length and width of a product, total amount of products in the package
4. Consignee references: Shipping marks, customer material number, customer bar code if available, also rows for free text if needed
5. Additional information: Country of origin, glue type, machining drawing, coating description etc.
6. Compliance marks: e.g. CE marking, Forest certification logo
7. Order number
8. Delivery address
9. Warning sign: Weight of package
10. Batch id: Bar code + numbers
11. Material number

The purpose of packaging is to protect the product against mechanical wear, tear, moisture and dirt. Sawn goods are packed either in length-or truck packages.



Timber length and truck packages



Stacked Timber packages

2. HANDLING OF TIMBER

2.1 Handling equipment

Proper size / width of forks must be used, adjustable fork width is recommended in order to ensure stable handling.

2.2 Handling of timber packages

All pallets must lean against the supporting bars, not be higher than supporting bars. Supporting bars should be wide enough not to damage the sides of the pallets.

Lift the packs up slowly, slightly tilting backwards towards the extended supporting bars. All aft most pallets have to be supported by the supporting bars.

Use correct length of forks to avoid punctures to next pallets or warehouse and vehicle walls.

3. WAREHOUSING

3.1 WAREHOUSE REQUIREMENTS

3.1.1 BUILDING

The building should be well constructed so that the stored goods are protected even in extreme weather conditions. Ridged roofs are recommended but most important the rainwater drainage pipes and gutters have sufficient capacity and should be located on the exterior of the warehouse. Back flow backup systems are recommended.

3.1.2 FLOORING

The floor of the warehouse should be on a higher level than areas outside. It must withstand the weight of the stored cargo and of the machines operating inside the warehouse; the minimum requirement is **9 tonnes/** square metres (2240 lbs/sqft). As floor material polished concrete, bitumen and concrete or plastic material are acceptable. No loose particles are allowed on the finishing surface of the floor. The maximum inclination of the floor is 1/200. Bare ground with adequate loading capacity is accepted for timber.

3.1.3 MARKINGS AND SAFETY AREAS

Areas for stored cargo must be well marked with painted lines and numbers. Free space by the walls and pillars must be clearly marked. Vulnerable places like pillars, electric boxes, water pipes etc. must be protected by guard rails and painted as hazards.

3.1.4 WAREHOUSE TRAFFIC

Doors and aisles for warehouse traffic must be wide enough for vehicles and forklifts to meet and pass and there must be sufficient operating space in the loading areas. A grid or floor drain positioned in the door openings is recommended to prevent water, sand and stones entering the warehouse on vehicle tyres. The trucks should have their lights on.

Corner and hanging ball mirrors and other safety equipment are required for dangerous places to ensure high quality and safe warehouse working. Any visitors to UPM operations should report first to the local office and adhere to site instructions. Unauthorized people are not allowed to walk or stay inside the warehouse. Working personnel and visitors must wear safety gear as per UPM / supplier regulations. Systems to prevent vehicle movement when loading are strongly recommended.

3.1.6 LIGHTING

Adequate lighting with minimum illumination of 200 candelas is required. Led, Fluorescent tube lamps and gas-discharge/luminous discharge lamps (HQL, NVA-T, HQI-T, HQI-BT types) are allowed. All lamps must have protective glass free covers. The safety margin from the highest point of the cargo stored to the lamps is one meter. Skylight and light colours for walls are highly recommended.

3.2 SAFETY AND SECURITY

3.2.1 WAREHOUSE LOCATION

Geographical and weather-related risks must be evaluated prior start using new warehouse facilities (i.e. flood, storms etc.). UPM logistics can provide detailed location analyse based on Nat Geo tool. There should be enough free space between warehouses and other buildings. The safety distance depends on the wall materials used and the fire resistance of used materials. Exact distances depend on local requirements.

3.2.2 FIRE PROTECTION

The warehouse and surrounding must be free of all kind of fire load. Fuelling and charging stations must be located outside warehouse. Trucks must be equipped with fire extinguishers. Parking of trucks is not allowed inside warehouse or directly next to outside walls due to fire risk.

The space of the warehouse should be separated by firewalls if the total area exceeds **10,000 square metres** or less if locally required. An automatic fire and smoke detection system must be installed. Smoke venting arrangements in the roof must be installed. Extinguishers, fire water post, alarming bells, buttons, markings etc. must be placed according to the national building regulations.

Fixed fire water system around the building is required. Check national regulations for specific details. UPM recommendation is not to install sprinkler system due to high risk for unexpected system failures/water damages. Never block access to fire posts etc. for example with cargo!

Hot work operations (e.g. welding and steel cutting) in the warehouse always require a special permit with special safety measures. They can only be carried out by authorized and licensed personnel. The owner of the warehouse is responsible for fire safety and for compliance with regulations. Monitoring of the area should continue for two to three hours after the work is completed

3.2.3 MAIN FIRE SAFETY MATTERS:

- Remove unnecessary fire load from the warehouse and surroundings (e.g. garbage, flammable liquids, wooden pallets)
- Do not park vehicles (forklifts) inside warehouse
- Protect surrounding materials that could easily catch fire
- Fire extinguishers must be kept available
- Monitor the nearby area for possible fire

3.2.4 SECURITY **AEO**

Security matters such as gates, fencing, monitoring, locking of the doors, alarming etc. must be managed so that the cargo stored in the warehouse will remain intact from intruders during the whole warehousing period.



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3.3. WAREHOUSING OF PRODUCTS

3.3.1 GENERAL REQUIREMENTS

As standing safety rule unnecessary stay inside warehouse/around the product stacks must be always avoided especially during the handling operations. There is always a risk that product stacks might collapse due to technical or human error.

UPM products must only be warehoused only with compatible products. Products listed in the IMDG-code should not be warehoused inside same facilities. There should be no risk that other goods will cause any stains, odour or similar harm to paper products.

1. The warehouse floor must be dry and clean, free of sand, stones and other debris to avoid end damages.
2. Special attention should be paid to keep birds out of warehouses. "Bird in distress" -signals and other means of prevention should be used.
3. Smoking is strictly prohibited inside the warehouses.
4. Warehouse must be equipped with sufficient lighting to ensure safe working. Lights without protective covers (only plastic) should not be used.
5. No rubbish should be left in and around the warehouse.
6. No vehicle parking allowed inside the warehouses.
7. A computerised warehouse stock management system with the capability of linking in to UPM systems is required.



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3.3.2 WAREHOUSING OF TIMBER

Timber packages are stored as high as it is safely possible (according to regional UPM requirements). Truck and length packages are stored in separate stacks where possible; otherwise truck packages are stored on top of the length packages. Bearers must be on the same places in each layer.



Racking is the preferable solution for a timber distribution warehouse



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4. TRANSPORT

4.1 Road transport



At least two lashing belts per row of packages are required for securing the cargo. Securing will be done by the driver; no documents are to be given to the driver before inspecting and ensuring that lashing and securing has been done properly.

4.2 Railway transport

To be updated later.



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4.3 Sea transports

Storo

Lolo



Plywood and timber packages are lifted in hold with sling. In other words, certified and inspected lifting belts will be left in hold for unloading purposes as well. All remaining caps must be secured in order to prevent cargo movements during sea voyage.

5. DAMAGE TYPES

5.1 Damage inspection and reporting



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