# Move More Products More Economically with **Slip Sheets**



**HARTA PACKAGING's slip sheets** are a lighter, less expensive and more efficient alternative to the wood pallets they replace.

HARTA PACKAGING will work with you to redesign, add value, and optimize your process to more effectively utilize our durable slip sheets.





Can be used with or without pallet.

# HARTA PACKAGING INDUSTRIES (PERAK) SDN. BHD.

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# > SLIP SHEET USAGE

**Slip sheets** are a lighter, less expensive and more efficient alternative to the wood pallets they replace.

Features	Benefits
Features         Durable and puncture-resistant High tensile strength         Made from multiple plies of 100% virgin kraft linerboard         Custom-designed to varying sizes, styles and thicknesses         Smart Environmental Choice Made from 100% renewable forest fiber procured in accordance with SFI® standards         100% Recyclable	<ul> <li>Cost-Effective         <ul> <li>Lighter, less expensive and more efficient than the wood pallets they replace</li> <li>Reduces storage costs by eliminating stacks of pallets</li> <li>Reduces freight costs by increasing payload per transportation vehicle</li> </ul> </li> <li>Versatile         <ul> <li>Custom-made to fit a variety of product footprints</li> <li>Ideal for automated conveyor systems with or without slave pallets</li> <li>Works well in manufacturing applications that are sensitive to contamination from foreign particles</li> </ul> </li> <li>Superior Protection         <ul> <li>Eliminates or reduces damage caused</li> </ul> </li> </ul>
	by defective pallets-no broken boards or nails puncturing your product
	by defective pallets-no broken boards
	Eliminates pallet infestation problems

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# > SLIP SHEET TYPES

There are several types of slip sheets that can be used for the transportation of a unit load depending upon the desired use of the sheet. The slip sheet is shaped and dimensioned to the size of the product or unit load. The type of slip sheet varies depending on both the number of lip extensions and the material from which it is manufactured.

The variation used would depend on the loading patterns, unit load parameters, and desired/maneuverability of the slip sheet/unit load. Normally, the thickness of the slip sheet ranges from 0.7mm to 1.5mm:

Dimensions			
	Standard	Alternative	
Length (L)	1200 mm	Optional up to 1300 mm	
Channelling (CL)	65 mm	50mm - 70mm	
Width (W)	800 mm	Optional up to 1100 mm	
Channelling (CW)	65 mm	50mm - 70mm	

The thickness of the slip sheet is dependenton the paper substance combination:

Э	Thickness	Pulling Strength
	0.7 mm	Up to 800 kg
	0.9 mm	Up to 1,100 kg
	1.1 mm	Up to 1,300 kg
	1.3 mm	Up to 1,500 kg
	1.5 mm	Up to 1,700 kg



# > ADVANTAGES

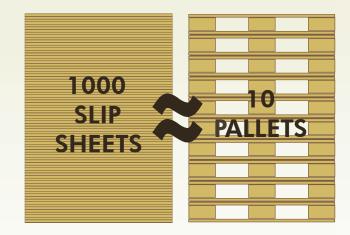
## **Advantages of Slip Sheets**

- Using slip sheets instead of wooden pallets allows for 12–15% more products in material handling containers.
- Slip sheets do not require maintenance and can easily be replaced.
- Significant reduction in material handling costs.
- Decreases loading/unloading time by up to 60%
- Weighs 1/20 as much as wooden pallets, reducing shipping costs.
- Can be customized to fit any size load.
- Eliminates the need for pallet exchange.
- Reusable and reliable.
- 100% recyclable.
- Is cost-effective.
- Unlike wooden pallets, slip sheets are not subject to phytosanitary restrictions

## MORE ABOUT SAVINGS:

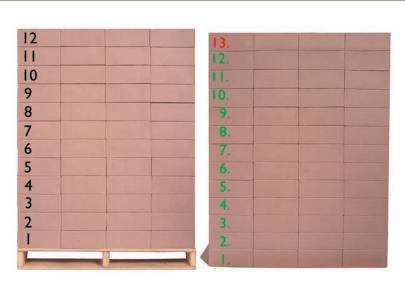
You can save a bundle when you make the change from wooden pallets to Slip Sheets: the cost of materials alone drops so significantly that any company should consider this option.

- Savings on material costs can be 80% or even more when compared to wooden pallets.
- Better use of space in containers and vehicles will reduce transportation costs.
- Slip Sheets are very light, which means major savings on air freight!
- Minimum space is required for storage of the sheets, thus reducing warehousing costs:
  - 1,000 Slip Sheets = 1 m3 1,000 pallet = 70 m 3



With Slip Sheets, you will have 100% recyclable and hygienic transfer sheets for different conditions. Not only is this option good for your company's bottom line, but environmental thinking will also be good for your corporate image!

## Figure 2:



#### Ship Products, Not Pallets Load more products in standard shipping containers.



# > DISADVANTAGES

# **Disadvantages of Slip Sheets**

- Large start-up cost. Push-pull forklift attachment cost RM40k to RM60k.
- Need customer participation. Customers must have push-pull attachment to move goods on slip sheets.
- Slip sheets must be placed on rackable pallets



Figure 3: Push-Pull Attachment Supplied by: GOLDBELL EQUIPMENT Sdn Bhd

## > Push-Pull Convenience

Fully compatible with dedicated push- pulls or standard forklifts outfitted with an easy-to-install push-pull attachment. Each high tensile strength slip sheet features a pull-tab on one or more sides to allow gripping of the load.





Reach



Grip



Pull



Lift



Level