

# HAND ROLLS Ø50 core x 300meter Transparent & Black

Thickness	Description	Stock	Item no.	
<b>Width 450mm x Ø50 core x 300meter</b>				
12 MY	LLDPE stretch film in hand rolls transparent or black if stated. Inside core diameter ø 50 mm 6 rolls er box		54164512	
15 MY			54164515	
17 MY			On Stock	54164517
20 MY			On Stock	54164520
23 MY			54164523	
30 MY			54164530	
35 MY			54164535	
20 MY Black			54164620	
23 MY Black			54164623	
<b>Width 500mm x Ø50 core x 300meter</b>				
12 MY	LLDPE stretch film in hand rolls transparent or black if stated. Inside core diameter ø 50 mm 6 rolls er box		54165012	
15 MY			54165015	
17 MY			54165017	
20 MY			On Stock	54165020
23 MY			54165023	
30 MY			54165030	
35 MY			54165035	
20 MY Black			54165120	
23 MY Black			54165123	
<b>Width 500mm x Ø50 core x 500meter</b>				
9my	LLDPE stretch film in hand rolls transparent Inside core diameter ø 50 mm 6 rolls er box		On Stock	54165009
<b>TOPFILM</b>				
Tickness x Width x Meter	Description	Item no.		
50my x 1500mm x 500m	LDPE top film in rolls for machine use 500 m/roll.	54701500		
<b>TOP sheets– Preformed sheets on rolls</b>				
Tickness x Width x Meter	Description	Item no.		
35my x 1300 x 1700mm Clear	LDPE top film in rolls, tear lines for sheets 200 sheets/roll	54713173		
50my x 1400 x 1700mm Black	LDPE top film in rolls, tear lines for sheets 130 sheets/roll	54713175		
<b>HAND Rolls width 100 MM For hand wrapping</b>				
17 my x 100 mm x 150 m Clear	LLDPE stretch film in MINI hand rolls 24 rolls /carton	54808017		
HAND DISPENSER W 600	With adjustable brake.	65005000		

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### Applicable equipment in relation to different processes:

- **Manual:**

General: The physical dimension such as height and weight, the handling limitations of manual hand wrapping.

- Hand Films dispenser for hand film 450 or 500mm width.
- Hand Films handles for mini rollers 100 to 125mm width.
- Hand preferred films for direct winding without secondary tool.

- **Semi-Automatic:**

General: The physical dimension such. height, diameter and weight puts restrictions on what the machines can perform. Each machine series will typically have a number of options that enable greater dimension, weight and diameter, this applies to all machines semi-automatic, automatic and fully automatic.

- **Basic Machine Concepts:**

- Tower type with the turntable, the pallet is rotating while being wrapped.
- Satellite type of unit where the film is wrapped around the stationary pallet.
- Tower type turntable with horizontal rolls where product is rolled and rotated.
- Combining turntable, satellite aggregates leads to extreme process speeds.

- Semi Automatic Pallet Wrapping E3 Wrap 4000, where you manually attach the film to the pallet before the process starts and automatically cuts the film when the process is completed. Basic Solution.
- Semi Automatic Pallet Wrapping E3 Wrap 6000, where you manually attach the film to the pallet before the process started, but the machine itself, cut the film when the process is completed. Advanced Solution.
- Best film with manual process where the wrapper has pause function.

- **Automatic:**

- Automatic Pallet Wrapper E3 Wrap 7000 which can start the process automatically and holds the film after cutting, ready for the next pallet to wrap. The only manual work is loading/unloading of the pallet which in turn is handled manually by truck or pallet truck.
- The Best film with manual process or automated integrated solution is the STEP HB 800.

- **Fully Automatic:**

- Fully Automatic Pallet Wrapping E3 Wrap 8000 is a process where the machines develops and manage the pallet without human intervention. The pallet is transported onto the taxiways, wrapped and carried out subsequently. It is important that the pallet has the necessary stability for the internal transport.
- Top films such as Fully Automatic Integrated Solution.

- **Other equipment which may advantageously be integrated around the wrapping process:**

- Weighing of the pallet with integrated weight system.
- Data collection around the packed pallet. The data are collected and stored up against the ERP system using the STEP Data Exchange System.
  - Scanning the pallet registration number.
  - Weighing Function.
  - Pallet dimension measurements.
  - Image capture of the pallet
  - 360 degree video capture of the pallet
- Top film dispenser.
- Top plate for stabilization of the pallet during wrapping.
- Taxiways on the turntable and / outlets for manual or automatic pallet change.
- Label marking of the pallet.

Typical process rates in the choice of machine type / process, depending on the sum function, pallet dimensions, product, movie selection, etc.

Fully Automatic Pallet Wrapping, projected full-optimal solutions, up to 70-100 pallets per hour.

Advanced wrapping and packaging lines with the incorporation of many types of processes in the project specified solution concepts and lines. In many cases, several technologies are implemented to ensure optimal use of each element, whereby

material and energy consumption is minimized. Data are collected and processed to ensure the right quality and information.

<b>Manual</b>	5-10 pallets day. A person will presumably be able to wrap more pallets per day but it is definitely not recommended as a permanent solution for regular pallet wrapping due to the negative impact working environment-wise.
<b>Semi-Automatic</b>	5-100 pallets a day
<b>Automatic</b>	5-30 Pallets per hour
<b>Fully Automatic</b>	5-120 Pallets per hour

#### Other types of machines and equipment for Wrapping:

			
<b>Horizontal Wrapping</b>	<b>Roll wrapping</b>	<b>Data capture pakke STEP Data Exchange System</b>	<b>Top films Dispenser STEP TF 1500</b>

#### Film Types:

#### General consideration and reality: *It is expensive to use an inexpensive film*

It is extremely important that the correct film used for the right purpose, so make sure you get a price optimal development of its product. This choice, start by selecting the machine, aggregate type, process point in relation to your production flow, material selection and secondary processes that affect the entire packaging process, mixed stability by moving internally from the process point to the moth.

- **Hand Film:**
  - LDPE cast or blown, clear, white, black, other colors Additional Features: UV, rust protection
  - Thickness: 9 to 35my
  - Width: 450-500mm for hand film on core  $\varnothing 50$  -  $\varnothing 76$  and core movable type. Hand Scrolls 75 to 150mm on core  $\varnothing 76$ .
  - Pre stretch: regular, Pre stretched.
- **Machine Film:**
  - LDPE cast or blown, clear, white, black, other colors Additional Features: UV resistant, UV, rust protection, perforated holes, added glue, etc.
    - Butene / Hektene types of short chains. LDPE Low Density with limited characteristics about the strength and elongation. STEP Basic Stretch
    - Oktene types of long and branched chains. Octene LLDPE Linear Low Density with good general properties such as strength and elongation. STEP Advanced Stretch
    - Metallocene types with numerous and widely branched Chain Metallocene catalyst is not a monomer such as ethylene, but the film producer of the donor represent. Especially good strength, tear and elongation properties. STEP ultimate stretch.
  - Thickness: 9my to 35my
  - Width: 500mm  $\varnothing 76$ mm on the core and the outer diameter up to 250mm, common European hemming. Jumbo rolls of width 750mm with outer diameter up to  $\varnothing 450$ mm.
  - Pre stretch degree: 100% to 400%, Pre stretched. The typical commercial products are 150%, 280% and 300% Pre stretch degree.
  - Interior or exterior glue.
  - Invoicing of film gross to net DKK / kg or gross to net DKK / roll with a number of meters in thickness given

- Hemming: Machine Film wrap on pallets typically 2 or 3 layer upright. Film Rolls should not lie down for the sake of balance, excitation and crib conditions during storage. Each layer is typically packed with either 15 (within a EURO pallet without an overhang) or 22 in which the film roll is packaged with an overhang on the pallet. Other variants exist.

### **Environmental Conditions:**

PE material composition is of particular interest as this is often hot welded:

Polyethylene ca. 98 %

Color pigments are not toxicca. 1-2 %

Toxic and Reaction Properties: Polyethylene is chemically and biologically inert. Polyethylene can be used directly for food.

### **Physical Contact:**

There is no risk, beyond the mechanical.

Welding, Gluing and Printing of PE Materials:

It is recommended to have the workplace have an outside ventilation to avoid exposure to welding fumes from plastic welding. If welding at a room temperature below 150 degrees, smoke and steam generation is considered to be insignificant. It is recommended that you always provide adequate ventilation for the sake of the general welfare of the workers.

PE can be used in friction welding and ultrasonic welding without the need of suction, as all welding fumes goes into cables in the weld zone.

PE has a low surface tension and therefore can only be glued and applied to the text for the treatment of the surface.

### **Flammability:**

When the polyethylene is heated, the material will melt at approx. 109-125 degrees.

### **Burning:**

Controlled burning is recommended. When ignited, the material will continue to burn, even after the ignition source is removed. The decomposition produces H<sub>2</sub>O, and CO<sub>2</sub>. If burned with a low presence of oxygen, the combustion will also produce mono oxide, which is toxic.

### **Recycling:**

PE materials are suitable for recycling.