

# TECHNICAL DATA SHEET

## Manustar 14µm

### APPLICATION

LLDPE polyethylene co-extruded stretch film , suitable for pallet wrapping and transport safety. This product is meant for secondary packaging purposes, and not intended for direct food contact.

Tensile Stress at Break* (N/mm <sup>2</sup> ; ASTM D882-10)		Elongation at Break* (%; ASTM D882-10)		Tensile Modulus* (N/mm <sup>2</sup> ; ASTM D882-10)		Application Performance (MSD method)
Machine Direction	Transversal Direction	Machine Direction	Transversal Direction	Machine Direction	Transversal Direction	
> 50	> 45	> 500	> 600	> 200	> 200	★★★★★ ★★

Thickness (µm)	Cling (N) (MSD Method)	Puncture Resistance* (J) (MSD method)	Ultimate Stretch* (%) (MSD method)	Guaranteed Pre-stretch (%)	Tolerances	
14	1.2	> 0.8	> 450	325	Film Length	± 3%
					Film Thickness	± 2µm
					Film Width	± 3%
					Inner Core Diameter	± 1mm

The shown data are indicative values, relative to our standard production. Manupackaging UK reserves the right to modify them in accordance with the products development. All data refers to test conditions 23°C, 50% rel. humidity.

\* Data refers to film thickness 23µm.

Manupackaging works following the Code of Ethics by decree 231/01, and is certified according to ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018.

# WAREHOUSING CONDITIONS AND OPERATION INSTRUCTIONS

## GOODS DELIVERY

Delivered rolls should be handled and stored as packaged by Manupackaging. The rolls should not touch the cutting edges of any machinery during carriage.

The rolls should be checked for damage before acceptance; any problems caused by transportation should be acknowledged and signed on the delivery note with a specified note by the authorized personnel from the customer and transportation company. The use of photography as supporting evidence is advised for further insurance claims.

## STORAGE CONDITIONS

Storage temperatures should NOT exceed 30°C; excess heat, humidity, or exposure to direct sunlight or UV lamps can cause such product issues such as:

- Blocking at the edges and inside the roll
- Development of fogging, reducing film transparency
- The film becoming brittle

Goods should remain on pallets or packed as supplied until ready for use. Use caution when opening the covers on films as damage caused by blades can render the entire roll unusable.

## USE OF GOODS

Independent quality controlling of rolls is recommended prior to use to ensure its compliance with necessary technical criteria.

Be cautious of the risk of electrostatic discharges when unpacking or using palletised goods; it is recommended that goods are unpacked in open areas, and that electrical grounding is ensured at all times.

Goods should be used at ambient conditions, between 15°C - 30°C.

Goods should be used within 12 months of delivery. After this period of time Manupackaging are unable to guarantee goods performance will remain as advised.

