

## PAPERWRAP

# the most sustainable pallet wrapping solution

Powered by EW Technology and Matco International, PaperWrap introduces a new era of pallet wrapping - packing pallets without any plastic



Semiautomatic stand alone



Fully automatic stand alone



Fully automatic line integration



**Recyclable** | up to 62%  
lower CO2 emissions



**Higher Pallet stability**  
versus plastic film



**Printing** | branding on the  
paper



**Patented technology**



**Partnership** with Mondi  
Group



**One-stop-shop** | machines  
/ services / paper


















**Semi automatic and fully**  
automated systems

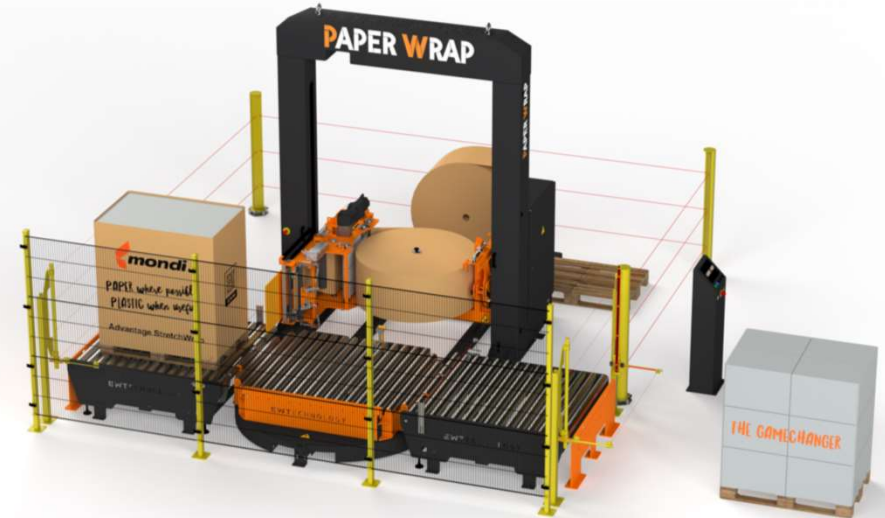


**Increase of uptime** versus  
plastic reels


















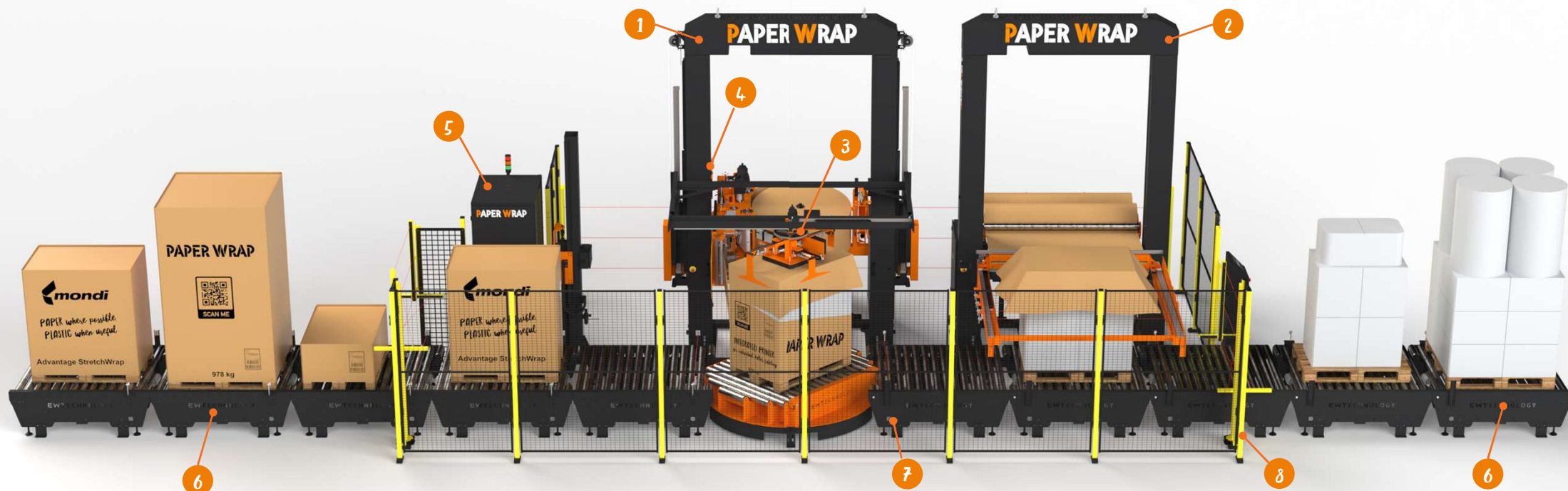
- Automatic wrapping process
- Manual feeding
- Minimal space requirement
- Wrapping up to 25 pallets/h
- Paper Folding Device: best stability with lowest paper consumption
- Mondi Paper | up to 62% lower carbon footprint
- Higher pallet stability during pallet transport

				
Capacity (pallets/hour) 10 - 25	Max. reel weight (kg) 35	Max. reel diameter (mm) 350	Paper width (mm) 490	Wrapping operations until reel change 30-60
				
Paper loading system none	Max. pallet length/width 1250/1250	Max. wrapping height (mm) 2000/2500	Max. pallet weight 1500	Remote Maintenance System yes
				
Folding Device yes	Tilting Carriage yes	Electronic Tension Control yes	Automatic glueing system yes	Integrated Printing System no



- Automatic wrapping process
- Automatic feeding (in/out)
- Wrapping up to 40 pallets/h
- Option for integrated printing system
- Able to handle Jumbo Reels
- Paper Folding Device: best stability with lowest paper consumption
- Mondi Paper | up to 62% lower carbon footprint
- Higher pallet stability during pallet transport

				
Capacity (pallets/hour) 20 - 40	Max. reel weight (kg) 450	Max. reel diameter (mm) 1200	Paper width (mm) 490	Wrapping operations until reel change 375-750
				
Paper loading system manual loading trolley	Max. pallet length/width 1600/1300	Max. wrapping height (mm) 2000/2800	Max. pallet weight 2000	Remote Maintenance System yes
				
Folding Device yes	Tilting Carriage yes	Electronic Tension Control yes	Automatic glueing system yes	Integrated Printing System yes



- Automatic wrapping process
- Automatic pallet transport
- Wrapping up to 70 pallets/h
- Different Equipment and Add ons available (see below)
- Fully automated end-of-line packaging
- Able to handle Jumbo Reels

- Extensive range of conveyors
- Paper Folding Device: best stability with lowest paper consumption
- Mondi Paper | up to 62% lower carbon footprint
- Higher pallet stability during pallet transport

**1 PaperWrap**  
Fully Automatic Pallet Wrapper for Paper

**2 PaperTop**  
Fully Automatic Paper Top Sheet Dispenser  
(requires down holder with folding arms)

**3 DownHolder**  
with or without folding arms for top sheet

**4 Integrated Printing System**  
for individual pallet labeling  
(Label, Logos, QR- and Barcodes)


**5 Pallet Labeling System**  
for 1, 2 or 3-sided labeling


**6 Conveying Technology**  
For inlet, outlet and customized layouts

**7 Weighing Technology**  
Integrated into pallet conveyor

**8 Safety Equipment**  
Fences, light curtains and muting systems  
(standard or customized layout)

  
Capacity  
(pallets/hour)  
50 – 70

  
Max. reel weight  
(kg)  
450

  
Max. reel diameter  
(mm)  
1200

  
Paper width (mm)  
490

  
Wrapping  
operations unit  
reel change  
375-750

  
Paper loading  
system  
manual loading  
trolley

  
Max. pallet  
length/width  
1600/1300

  
Max. wrapping  
height (mm)  
2000/2800

  
Max. pallet weight  
2000

  
Remote  
Maintenance  
System  
Yes

  
Folding Device  
yes

  
Tilting Carriage  
yes

  
Electronic Tension  
Control  
yes

  
Automatic glueing  
system  
yes

  
Integrated Printing  
System  
yes











SPECIFICATIONS





- Fully Automatic Paper Top Sheet Dispenser
- Requires down holder with folding arms
- Capacity: up to 70 pallets/h
- Adjustable paper pull-out length
- Flexible for paper widths up to 1800 mm
- Fully covered, even at the top
- Best protection
- Mondi Paper | up to 62% lower carbon footprint
- Higher pallet stability during pallet transport

## SPECIFICATIONS

				
Capacity (pallets/hour)	Max. reel weight (kg)	Max. reel diameter (mm)	Max. Paper width (mm)	Operations until reel change
50 – 70	100	300	1800	375-550
				
Paper loading system	Max. pallet length/width	Max. pallet height (mm)	Max. pallet weight	Remote Maintenance System
Yes	1600/1300	2000/2800	2000	Yes



## Add-on for PaperWrap fully automatic

Down Holder available with or without folding Arms for Paper Top Sheet

## • With folding arms:

- Higher pallet stability during wrapping cycle
- Adjustable pressing force
- Holds the cover sheet on the pallet in place
- Folds the cover sheet down along the edges of the pallet
- For a perfect closure also from the top
- Requires PaperTop Sheet dispenser
- With driven downholder head
- Complete mass balancing with counterweights for maximum energy efficiency
- With horizontal stroke to support the pallet while conveying out

## • Without folding arms:

- Higher pallet stability during wrapping cycle
- Adjustable pressing force
- For the stabilization of light and unstable pallets
- Increasing speed and capacity for unstable loads
- Complete mass balancing with counterweights for maximum energy efficiency
- With horizontal stroke to support the pallet while conveying out



#### Add-on for PaperWrap fully automatic

- For individual pallet labeling (Label, Logos, QR- and Barcodes)
- Available with 1 / 2 / 3 print heads and 108 / 216 / 324 mm max. print height
- Capacity: up to 70 pallets/h
- Very process-safe piezo inkjet with ink tank recirculating ink system
- Cost savings for pallet labeling
- Very dark and intense print
- Connection to ERP system possible for exchange of pallets individual print data
- No cartridges
- Monochrome (standard) or optionally bicolor



#### Add-on for PaperWrap fully automatic

- Compact and robust 3-sided labeler
- Thermal transfer or direct thermal print
- Up to 600 dpi printing resolution
- Available for 1,2 or 3 side pallet labeling
- Only 2 pallet stop positions are required for 3-sided labeling
- Processing of large label rolls with a diameter of 350 mm
- Spring-loaded dispensing pad for pressing on the label
- Developed for round-the-clock use
- Preparation for scanners on the dispensing stamp for verification
- Print module technology from leading global manufacturers is used
- Standard label size: 150 x 210 mm (GS1); other sizes on request
- Capacity: 90 pallets/h with 3 sided labeling
- Lifting axis for label height adjustment optional available





- Standard or customized conveyor technology
- Robust and long-life construction
- Frequency-controlled version available for different conveying speeds
- Standard conveyor width 1365 mm; others available on request
- Standard conveying height 500 mm; others available on request
- Maximum pallet weight 1500/2000 kg
- Incl. light barrier sensors for control
- Various conveying layouts



Max. pallet  
length/width  
1600/1300



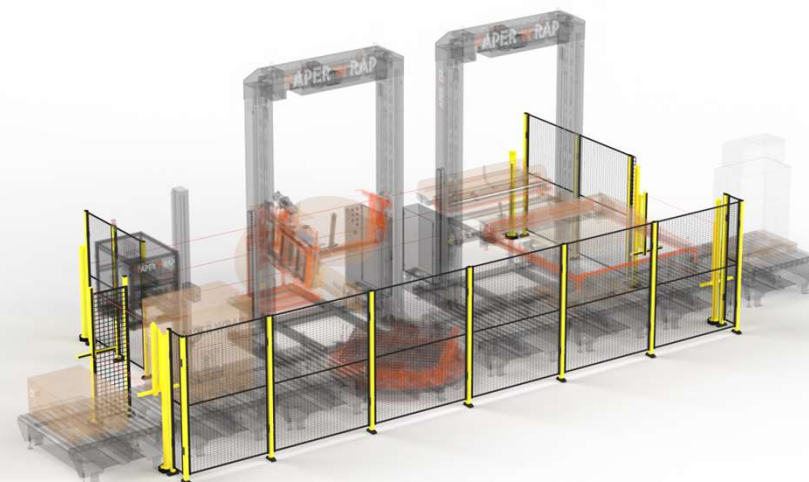
Max. pallet weight  
2000



#### Add on for PaperWrap Fully Automatic Wrapper

- For automatic weighing of the pallet
- Weighing technology built into pallet conveyor
- Very high accuracy +/- 0.5 kg
- The measured pallet weight can be printed on the pallet or transferred to the production data management system via an interface

#### 8 Safety Equipment



- Fences, safety doors, light curtains and muting systems
- individual for all machine variants
- as standard layout or for customized security area
- highest level safety in the smallest possible space





FURNITURE INDUSTRY, HUNGARY

**PaperWrap fully automatic line integration**

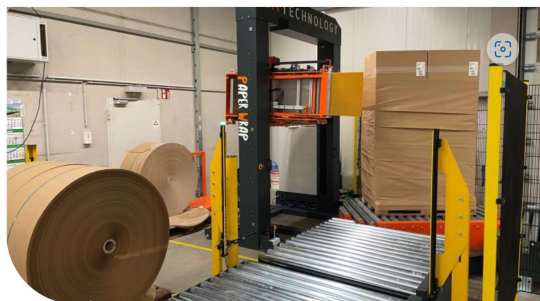
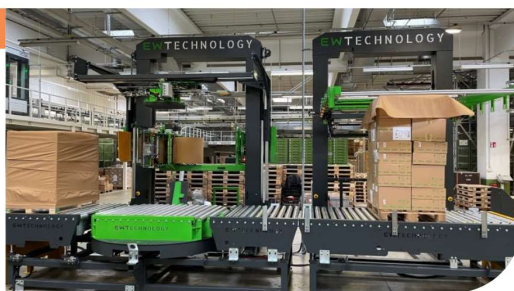
3-head printing system, enables to print clear messages, company logos, pallet labels and QR codes on the pallets. Maximum print height 324 mm. Highly visible messages and guaranteed attention. In addition, a hold-down device so that even very light and small pallets can be wrapped. Outputs of up to 70 pallets per hour.



ELECTRONIC INDUSTRY, GERMANY

**PaperWrap fully automatic line integration | PaperTop | Down Holder | folding Arms for Top Sheet**

Pallets fully covered; also from above! The cover sheet is applied one station upwards and then held in position by a hold-down device with integrated folding arms and folded downwards along the pallet edges. The weight of the pallets is recorded directly in the conveyor technology and transmitted to the customer's ERP system and then printed on the pallet label.



WAREHOUSE &amp; LOGISTICS, GERMANY

**PaperWrap fully automatic line integration | PaperTop | Down Holder | folding Arms for Top Sheet**

The PaperWrap machines are also the right way to replace single-use plastic and reduce the CO2 footprint in warehouses and logistics. In this case with a fully automatic line integration in a 90° arrangement. The available space is ideally utilized.



PAPER INDUSTRY, SPAIN

**PaperWrap fully automatic line integration**

Paper bags for various products are wrapped on one fully automatic line. Due to the breathability of the wrapping paper, the adhesive in the paper bags dries out more easily and they can be wrapped immediately after palletising without intermediate storage. The system works in line with a Plastic Stretch Film machine and a Hydraulic Pallet Press. The customer can choose: plastic or paper.



FOOD PACKAGING, POLAND

**PaperWrap fully automatic stand alone**

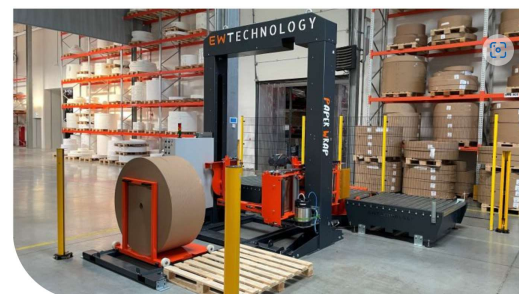
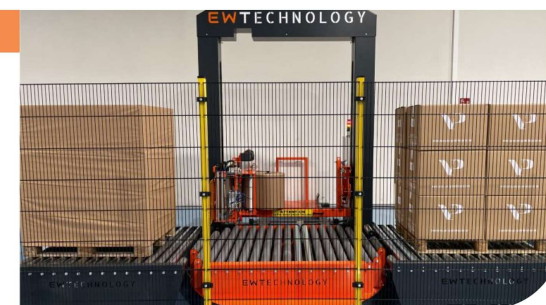
Pre-printed paper is used for wrapping. Due to the higher stability and better mechanical protection, the plastic straps and edge protection profiles are saved in addition to the substituted plastic stretch film. Step 2: the secondary packaging cartons are eliminated due to the better protective effect of the paper. Product rolls of the paper vegetable bags are wrapped directly.



PACKAGING INDUSTRY, SPAIN

**PaperWrap fully automatic stand alone**

It's a great thing when sustainable packaging products as paper bags, are also packaged sustainably on the pallets and well secured with our PaperWrap Technology. With the patented PaperWrap technology and Mondi's Advantage StretchWrap paper, you get the best results, also when it comes to load stability.



PACKAGING INDUSTRY, POLAND

**PaperWrap fully automatic stand alone | loading from both sides**

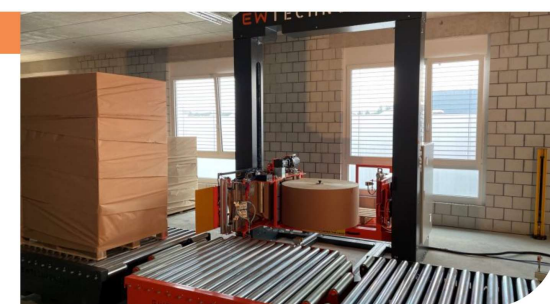
Paper bags for various products are wrapped on two large production lines which are brought together on one PaperWrap machine. The PaperWrap machine has been configured so that it is positioned in the centre of the two production lines and can be loaded and unloaded on both sides. The pallets are output to the side from which they were loaded.



PACKAGING RETAIL, SWITZERLAND

**Fully automatic stand alone**

This PaperWrap solution offers maximum sustainability for the trade and dispatch of different packaging products. Despite limited space, a fully automatic stand-alone solution can also be realised thanks to the compact and modular design. We offer the best advice to our customers, resulting in both environmental gains and better pallet stability versus plastic wrapping.





# Advantage StretchWrap LIFE CYCLE Assessment

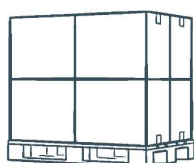
## Life Cycle Assessment

LCA is a method used to assess the environmental impacts throughout a product's life cycle from raw material acquisition to production, use and end-of-life treatment, such as recycling and final disposal (i.e. cradle-to-grave).

## Functional Unit

The packaging required to wrap one Euro-pallet at the customer for the transportation of goods, excluding the pallet itself, further transport or product losses. The end-of-life of the wrap is included.

## The reference flows in the LCA are:



**Paper-based Advantage StretchWrap:** 840g per Euro-pallet

**Plastic stretch film, 0% recycled content:** 400g per Euro-pallet

**Plastic stretch film, 50% recycled content:** 400g per Euro-pallet

**Plastic stretch film, 30% recycled content:** 400g per Euro-pallet

**Baseline scenario:** both materials are recycled at the end-of-life

## Impact Assessment Method:

Environmental footprint (EF) method 3.0:

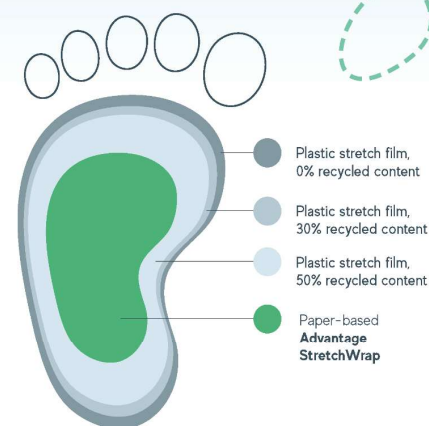
This method is the impact assessment method of the Environmental Footprint initiative by the European Commission and has 16 mid-point indicators.

Advantage StretchWrap is responsible for lower impacts in these categories:

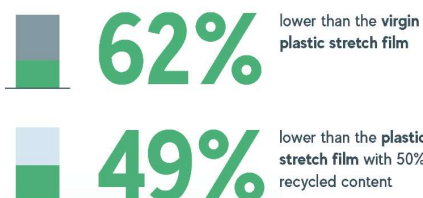
- Climate change
- Fossil resource use
- Ionising radiation - human health
- Particulate matter
- Human toxicity (cancer)
- Human toxicity (non-cancer)
- Freshwater ecotoxicity
- Acidification
- Mineral and metal resource use

## Carbon footprint:

Advantage StretchWrap has the smallest footprint

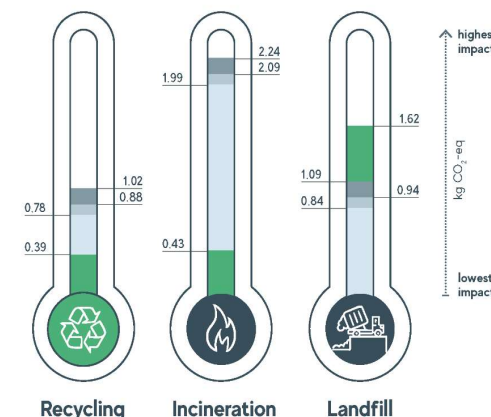


This means that Advantage StretchWrap's carbon footprint is:



## Climate Change impact across the full life cycle

based on 3 end-of-life scenarios



Recycling is the best end-of-life scenario for paper, but also for plastic.

Advantage StretchWrap can be recommended to mitigate climate change impacts

The different end-of-life scenarios have an impact on the results - recycling is the preferred option

There are impacts in other categories which need to be reduced to show an overall environmental advantage

**Mondi's recommendation**

We evaluate each potential application of Advantage StretchWrap on a case-by-case basis

Choose the right materials for the right applications: Application and wrapping processes need to be taken into consideration for efficient wrapping

Life Cycle Assessment  
**KEY take AWAYS**

\*The 16 environmental indicators of the EF method: Climate change, Ozone depletion, Ionising radiation, Photochemical ozone formation, Particulate matter, Human toxicity (non-cancer), Human toxicity (cancer), Acidification, Freshwater eutrophication, Marine eutrophication, Freshwater ecotoxicity, Land use, Terrestrial eutrophication, Water use, Fossil resource use, Metal and mineral resource use.



# ADVANTAGE StretchWrap



## ✓ Benefits

- + Recyclable lightweight paper
- + Circular driven solution of high recycling value
- + Safe for transport (EUMOS standard)
- + Outstanding paper stretch of 11%
- + Exceptional tensile energy absorption (TEA)
- + High quality responsibly sourced Nordic fibres

## ↕ End-uses

- + The new Advantage StretchWrap is a machine finished paper that replaces plastic stretch film.
- + Suitable for wrapping pallets of different dimensions including irregular shapes and underhang.

PEFC	FSC	Quality Management System	Environmental Management System	Food Safety Regulations
•	•	ISO 9001:2015	ISO 14001:2015	BfR, FDA, CONEG

## ⚙️ Technical Data

Properties	Unit	Method		Typical values
Basis Weight	g/m <sup>2</sup>	ISO 536		70
Thickness	µm	ISO 534		105
Tensile strength	kN/m	ISO 1924-3	MD/CD	7.8 / 3.3
Stretch	%	ISO 1924-3	MD/CD	11 / 10
Tensile Energy Absorption	J/m <sup>2</sup>	ISO 1924-3	MD/CD	420 / 245
Tear strength	mN	ISO 1974	MD/CD	760 / 1340
Cobb60	g/m <sup>2</sup>	ISO 535		28

Issued from 01.01.2023, latest version available on [www.mondigroup.com](http://www.mondigroup.com)

Test conditions:  
ISO 187:1990 (23 ± 1°C / RH 50 ± 2%)



SUSTAINABLE by DESIGN

**PAPER WRAP**  
GREEN BY ORANGE

PaperWrap green by orange GmbH  
Keßlastraße 18  
4722 Peuerbach, Austria  
[www.paperwrap.com](http://www.paperwrap.com)

✉ [INFO@PAPERWRAP.COM](mailto:INFO@PAPERWRAP.COM)