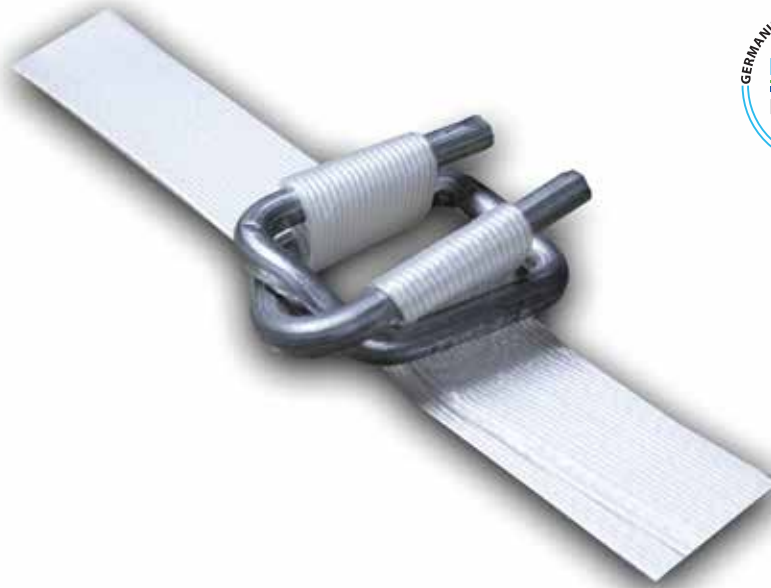




*For the security of your cargo...*



## TT Industrial Packaging

A Talu Trade Group company, TT Industrial Packaging, under its trade mark brand CO-STRAP, is a manufacturer of polyester corded composite and textile strapping and a supplier of industrial packaging materials and machinery.

Our mission is to make CO-STRAP a worldwide reputable brand by taking advantage of our engineering know-how, highly valuable human resources and strong international network, and offer our expertise and consulting services in order to create the safest, most efficient, and value-added packaging solutions for all of our business partners.

### **CO-STRAP Verpackungslösungen GmbH**

**CO-STRAP Verpackungslösungen GmbH** is a subsidiary company of TT Industrial Packaging based in Rothenburg, Germany, founded in order to accommodate our increasing business demand in the region. It provides us with more flexibility in the time and quantity range we can deliver to our customers and ensures that even last minute orders are satisfied immediately.



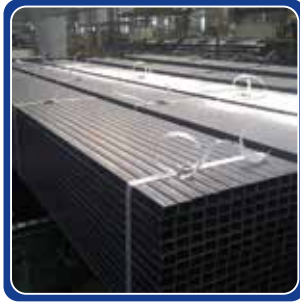
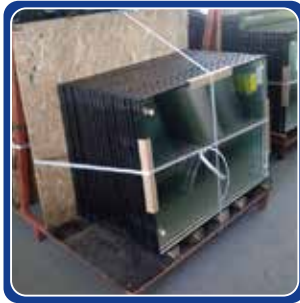
#### **Highlights:**

- **Technical Support**
- **R&D Projects**
- **Quality Management**
- Germanischer Lloyd Approval
- ISO 9001 Quality Management System Certification
- **International Expansion**
- CO-STRAP Verpackungslösungen GmbH
- CO-STRAP USA





# Polyester Corded Straps



*Polyester corded straps, which we have been manufacturing under the trade mark CO-STRAP, have the same breaking strength as the PET and the Steel Straps. Thanks to their safety in usage, cost advantage and user friendly properties in all applications, polyester corded straps' market share keep boosting.*

*Their elastic structure and resistance to severe weather conditions make CO-STRAP straps gain unrivaled advantages while transporting and handling your cargo.*

*Polyester corded straps are manufactured under two different categories: textile strapping and composite strapping. Even though they have similar tensile strengths, they differ from each other according to their cost structure and type of application: Textile straps are softer in comparison to composite straps, so they can be used without buckles. Although they are more economical than composite straps, textile straps are not as resistant as composite straps to severe weather conditions and impacts. In addition, composite straps are also much easier and faster to use than textile straps.*

*Our motto is: "The right product for the right application". If/when requested, the necessary support is always provided on site by our expert sales team.*

**High breaking strength • Shock absorbent • Long term elasticity • Resistant to severe weather conditions  
• Cost effective • No cargo damage • No getting loose • Safe usage**





# Composite Straps

*Printed Composite Straps  
Ultraflex Quality  
Strapping Kits  
Colored Straps*




*CO-STRAP Composite Corded Straps are produced from high tenacity polyester yarns and polypropylene flakes. Composite straps are stiff but flexible products that can be easily used at various packaging applications. They are highly resistant to severe weather conditions (especially hot climates) and unlike PET and Steel Straps they do not break instantly from a single point against impacts. Based on the application types and packaging volume they can be much more economical than other strap types.*

- *High Strength*
- *Shock Absorbent*
- *Does not get loose (High retain tension)*
- *Highly Elastic and Flexible*
- *No sharp edges that could damage your products*
- *Does not damage cargo*
- *Resistant to Severe Weather Conditions and UV*
- *Cost Effective*
- *Light-Weight*
- *Rust-proof, doesn't rust or corrode*
- *Resistant to chemicals*
- *Fast and easy to use*
- *Safe Usage*
- *Flex / Ultraflex Composite Straps can be feed easily through the buckle*
- *Printing with company name and/or logo on the straps is available*
- *Germanischer Lloyd approved*

 **CO-STRAP** Verpackungslösungen GmbH

 **CO-STRAP** Verpackungslösungen GmbH

 **CO-STRAP** Germanischer Lloyd Approved

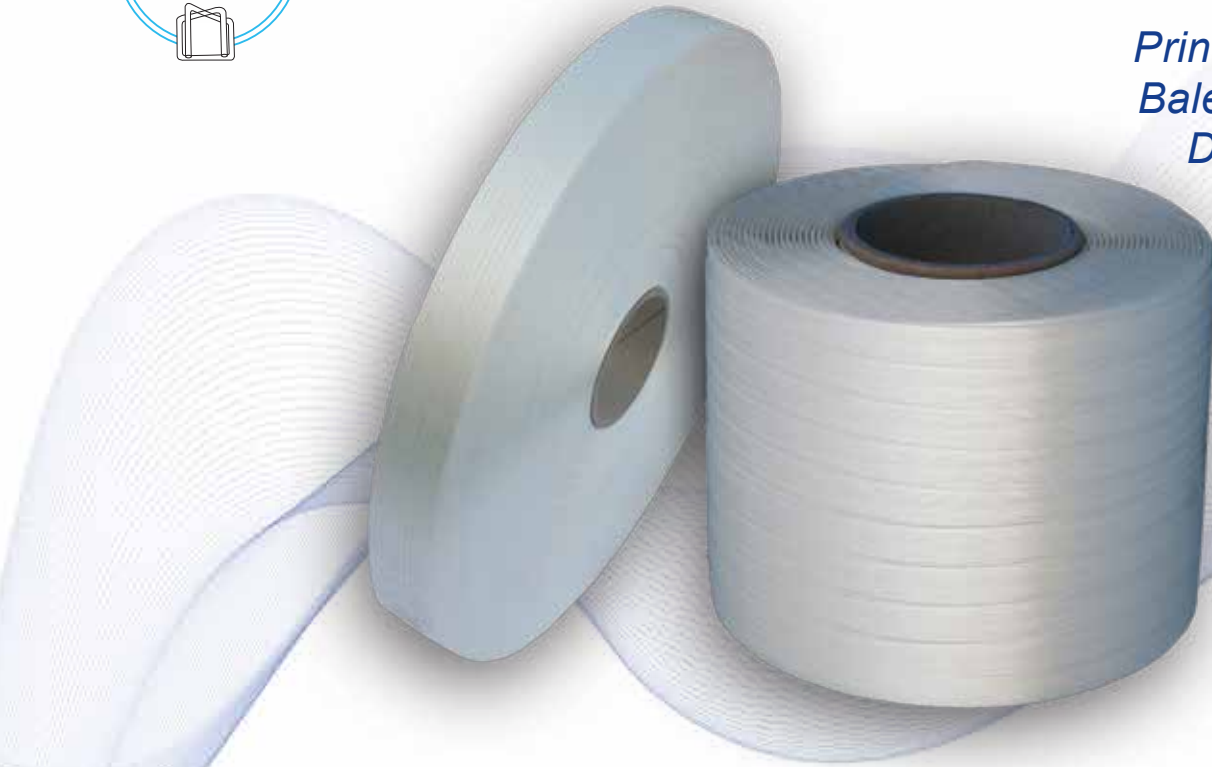






# Textile Hotmelt Straps

*Printed Textile Straps  
Bale Press Strapping  
Dispenser Box Set  
Strapping Kits  
Colored Straps*



*CO-STRAP Textile Corded Straps are produced from high tenacity polyester yarns and hotmelt Textile straps can be a good alternative for Steel and PET straps especially at cold and humid climates. Textile straps are soft products that can be used without buckles and is a cost effective alternative for PET and Steel straps which can only be used with battery charged tools or semi/full automatic strapping machines.*

- *High Strength*
- *Shock Absorbent*
- *Does not get loose (High retain tension)*
- *Highly Elastic and Flexible*
- *No sharp edges that could damage your products*
- *Does not damage cargo*
- *Resistant to Severe Weather Conditions and UV*
- *Cost Effective*
- *Light-Weight*
- *Fast and easy to use*
- *Soft and can be used without buckle*
- *Printing with company name and/or logo on the straps is available*
- *Germanischer Lloyd approved*



# Woven Straps

Woven straps is an alternative to steel banding. Woven cord strapping has similar physical properties with textile straps. They have to be used with phosphated buckle.



Woven Straps				
CO-STRAP Product Code	Width (mm)	Linear Break Strength (kgf)	Coil Length* (m)	Core Diameter (mm)
<b>Standard Application</b>				
WV13ST	13	360	1100	76
WV16ST	16	450	850	76
WG19ST	19	600	600	76
<b>Strong Application</b>				
WV13STR	13	475	850	76
WV16STR	16	600	600	76
WV19STR	19	750	500	76
WV25STR	25	1000	500	76
<b>Extra Strong Application</b>				
WV19ESTR	19	1000	400	76
WV25ESTR	25	1400	300	76

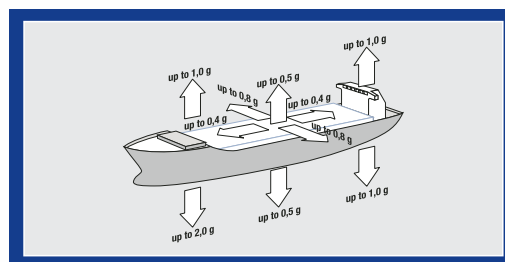
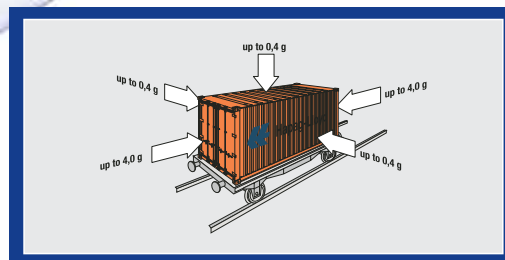
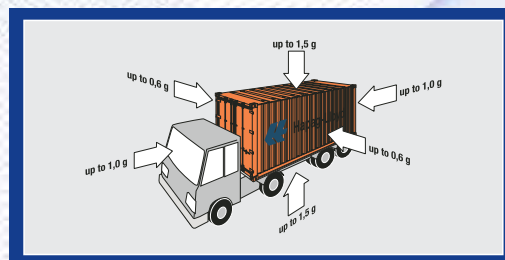
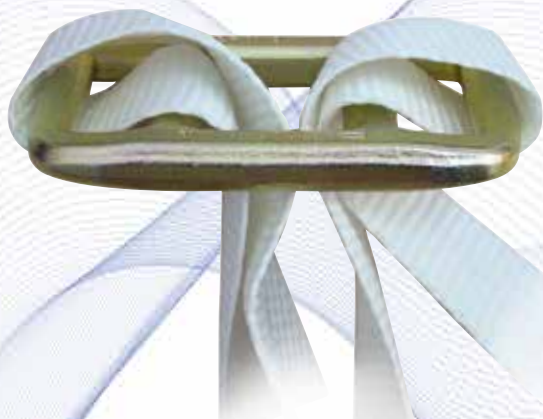
\* : Different coil lengths are available upon request



# Lashing

TT Industrial Packaging Company supplies all kinds of Lashing products and equipment as well as consultancy services on appropriate application ways with the help of its experts. Lashing products are designed to bear optimized specifications for cargo securing on land, marine and airline transportation, flat-racks, railcars & ships.

**Cost effective • Re-stretchable • No product damage • Shock absorbent • Weather resistant • High retained tension • Light-weight and portable • Does not rust out**



Lashing			
CO-STRAP Product Code	With (mm)	Linear Break Strenght (kgf)	Coil Lenght (m)
COLASH 100	25	2200	400
COLASH 105	32	2000	250
COLASH 105 S	32	2300	250
COLASH 150	38	3500	200
COLASH 200	40	5000	200
COLASH 500	50	5000	150
COLABH 600	50	6000	150
COLASH 750	50	7500	150

# PET Straps

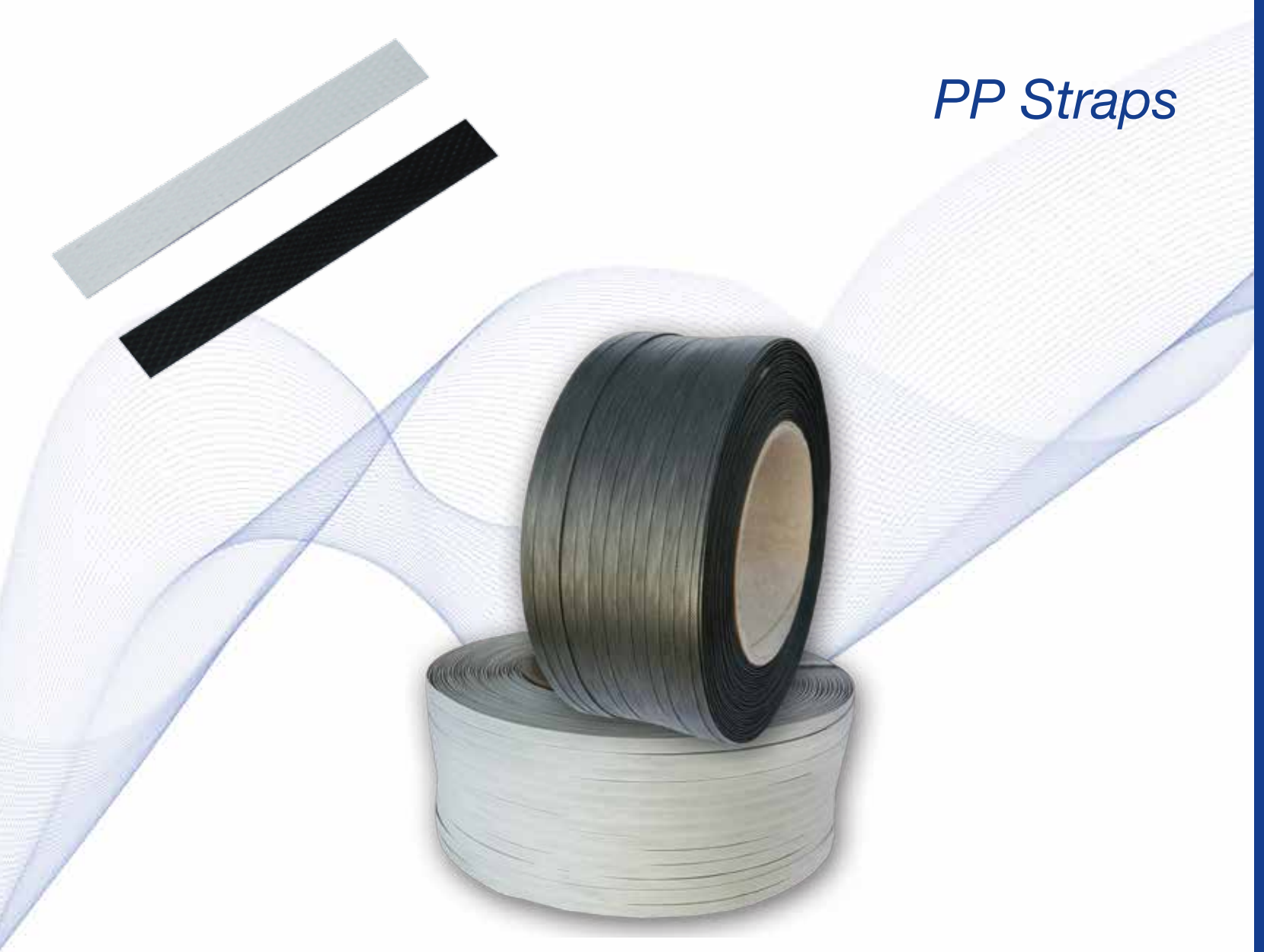


*PET Straps can be used in fully automatic pallet strapping machines during the packaging of products which require medium and high strength strapping. They can also be used by pneumatic strapping machines or battery powered strapping machines.*

***High breaking strength • Shock absorbent • Long term Elasticity • Resistant to severe weather conditions • Environmentally friendly • No cargo damage • No getting loose • Safe and fast usage***



# PP Straps



*PP Straps offer one of the most cost effective alternatives for light weight applications with low tensile strength. They can be used with buckles and welding system.*

***Safe and quick • No cargo damage • Cost effective • Medium resistance to severe weather conditions***



# Strapping Tools And Accessories

**Manual Strapping Tools:** These are appropriate for various kinds of usages and offered in two types as light/medium and heavy duty applications.



**Battery Charged Strapping Tools:** The battery charged strapping tools used in PET and PP strapping applications are user friendly, safe and have high tensioning capacity.



**Plastic Edge Protectors:** They are suitable for different types of strapping and can be produced in custom colors upon request.



**Plastic Buckles:** Plastic strapping buckles are designed to work with polypropylene strapping no need for strapping tools!



# Strapping Buckles

## Strapping Buckles:

The thickness of the strapping buckles range from 8 mm to 40 mm and they are convenient to use in all types of strapping.

- Galvanized Buckles
- Phosphated Buckles

### Galvanized Wire Buckles

CO-STRAP Product Code	With (mm)	Wire Ø	Quantity Per Box (m)
COB4G13	13	3.0	1000
COB4G13-STD	13	3.3	1000
COB5G16	16	3.3	1000
COB5G19-HD	16	3.5	1000
COB6G19	19	3.5	1000
COB6G19-HD	19	4.0	1000
COB8G25	25	5.0	500
COB8G25-HD	25	6.0	400
COB10G32	32	7.0	250
COB12G40	38	7.0	200

### Phosphated Wire Buckles

CO-STRAP Product Code	With (mm)	Wire Ø	Quantity Per Box (m)
COB4P13	13	3.0	1000
COB4P13-STD	13	3.3	1000
COB5P16	16	3.3	1000
COB5P16-HD	16	3.5	1000
COB6P19	19	3.5	1000
COB6P19-HD	19	4.0	1000
COB8P25	25	5.0	500
COB8P25-HD	25	6.0	400
COB10P32	32	7.0	250
COB12P40	38	7.0	200



# Coil Dispensers

## **Textile Strap Dispenser CO-DISP101**

*Textile Strap Dispenser*

**Core Diameter:** 76mm I.D. without rollers

**Color:** Standard Black

**Wheel Type:** None

**Weight:** 5kg

## **Textile Strap Dispenser CO-DISP102**

*Textile Strap Dispenser*

**Core Diameter:** 76mm I.D. with rollers

**Color:** Standard Black

**Wheel Type:** 150x15

**Weight:** 9kg

## **PET & Composite Strap Dispenser CO-DISP103**

*PET & Composite Strap Dispenser*

**Core Diameter:** 400mm

**Color:** Standard Black

**Wheel Type:** 150x15

**Weight:** 14kg

## **PET & Composite Strap Dispenser CO-DISP104**

*PET & Composite Strap Dispenser*

**Core Diameter:** 200mm

**Color:** Standard Black

**Wheel Type:** 150x15

**Weight:** 9kg





# Coil Dispensers



## **Polyester Strap Dispenser CO-DISP105**

*Polyester Strap Dispenser with break*

**Core Diameter:** 400mm

**Color:** Standard Black

**Wheel Type:** 200x15

**Weight:** 25kg



## **Steel Strap Dispenser CO-DISP106**

*Steel Strap Dispenser with break*

**Core Diameter:** Suitable for 13 - 16 - 19 - 25 mm & 32 mm Steel Strapping

**Color:** Standard Black

**Wheel Type:** 200x15

**Weight:** 25kg



## **Composite Strap Dispenser CO-DISP108**

*Composite Strap Dispenser for 200mm core*

**Core Diameter:** 200mm

**Color:** Standard Black

**Wheel Type:** 200x15

**Weight:** 14kg



## **Composite Strap Dispenser CO-DISP112**

*Composite Strap Dispenser for 200mm core*

**Core Diameter:** 200mm

**Color:** Standard Black

**Wheel Type:** 150x15

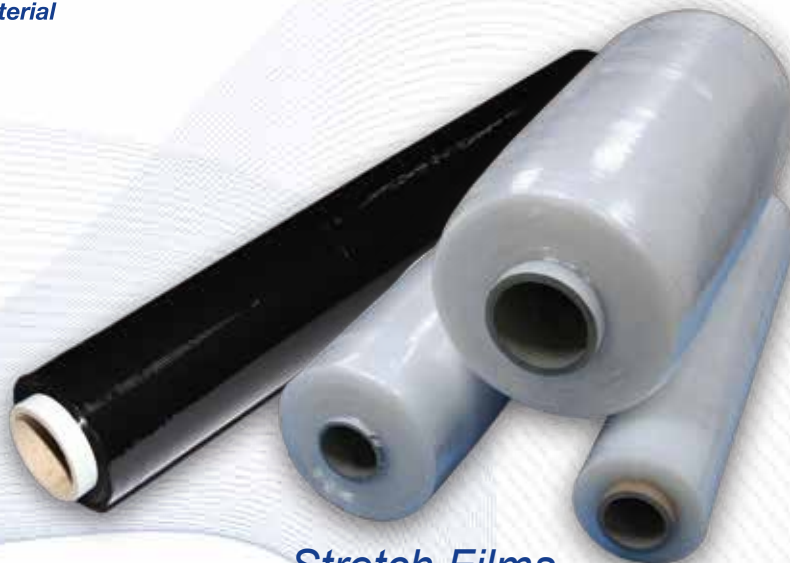
**Weight:** 9kg



# Stretch Films

**Prestretch Films** reduce the amount of material required by as much as 50% for greater savings. A reel of Prestretch Film bobbins weight up to 70% less than a traditional 300 meters manual reel and makes packaging easier. More protection for delicate products thanks to a more delicate application of the film on the pallet.

**Economic • More light • More output • More strength • More protection • More resistance to impact and tearing • More safety • Reduced cost for waste material**



## Stretch Films

HP - HIGH PERFORMANCE STRETCH FILMS - AUTOMATIC USE						
Width (mm)	Gauge (my)	Length (m)	Gross Roll Weight (kg)	Core Weight (kg)	Net Roll Weight (kg)	Rolls Per Pallet
500	12	3,000	17.56	1.00	16.56	30
500	15	2,400	17.56	1.00	16.56	30
500	17	2,100	17.42	1.00	16.42	30
500	20	1,800	17.56	1.00	16.56	30
500	23	1,550	17.40	1.00	16.40	30
PIU PRESTRETCH FILMS - HAND USE						
Width (mm)	Gauge (my)	Length (m)	Gross Roll Weight (kg)	Core Weight (kg)	Net Roll Weight (kg)	Rolls Per Pallet
430	8	600	2.16	0.26	1.90	200
430	10	300	1.37	0.18	1.19	312
430	10	600	2.63	0.26	2.37	148
430	12	300	1.68	0.26	1.42	240
PIU PRESTRETCH FILMS - AUTOMATIC USE						
Width (mm)	Gauge (my)	Length (m)	Gross Roll Weight (kg)	Core Weight (kg)	Net Roll Weight (kg)	Rolls Per Pallet
430	8	1,500	5.52	0.77	4.75	36
430	8	3,000	10.26	0.77	9.49	22
430	10	1,500	6.70	0.77	5.93	36
430	10	3,000	12.64	0.77	11.87	22
430	12	1,500	7.89	0.77	7.12	36
430	12	3,000	15.01	0.77	14.24	22





# Stretch Wrapping Machines

## MYTHO A

*New design rotating table for wrapping palletized loads of any shape and weight with stretch film including stretch net. Is the only stretch film wrapping machine in the world which does not need any maintenance or cause any line installation cost.*



## SFERA

*Self-propelled mobile robot for wrapping palletized loads of any shape, weight and dimension with stretch film including stretch net in less than one minute.*



## OMEGA

*Omega is the fastest fully automatic rotating ring machine in the world for wrapping palletized loads.*





# Automatic Strapping Machines

*In addition to our composite corded and textile straps production in Turkey, we have been installing automatic, manual and semi-automatic strapping machines worldwide.*



Steel Coils Through the Eye Strapping  
Yassı Mamul Rulolar için Göbekten Çemberleme Makinesi



Flat Product Coils Vertical Strapping  
Yassı Mamül Rulolar için Dış Gövde Çemberleme



## PET Straps

CO-STRAP Product Type	Size (mm)	Linear Break Strength (kgf)	Length (m)	Color	Surface
POLYESTER (PET) STRAP	12x0.70	340	2500	Green	EMBOSSED
POLYESTER (PET) STRAP	12x0.70	300	2600	Green	EMBOSSED
POLYESTER (PET) STRAP	15x0.70	380	1400	Green	EMBOSSED
POLYESTER (PET) STRAP	15.50x0.90	530	1500	Green	EMBOSSED
POLYESTER (PET) STRAP	16x0.60	345	1800	Green	EMBOSSED
POLYESTER (PET) STRAP	16x0.70	470	1550	Green	EMBOSSED
POLYESTER (PET) STRAP	16x0.70	470	1750	Green	EMBOSSED
POLYESTER (PET) STRAP	19x0.80	550	1200	Green	EMBOSSED
POLYESTER (PET) STRAP	19x1.00	700	1000	Green	EMBOSSED
POLYESTER (PET) STRAP	12x0.60	280	2200	Green	SMOOTH
POLYESTER (PET) STRAP	15.50x0.90	630	1500	Green	SMOOTH
POLYESTER (PET) STRAP	19x1.00	840	900	Green	SMOOTH
POLYESTER (PET) STRAP	19x1.27	1050	730	Green	SMOOTH
POLYESTER (PET) STRAP	19x1.27	1050	2200	Green	SMOOTH
POLYESTER (PET) STRAP-ECO	12x0.60	220	2200	Green	EMBOSSED
POLYESTER (PET) STRAP-ECO	19x1.00	655	1100	Green	EMBOSSED

## PP Straps

CO-STRAP Product Type	Type	Color	Size (mm)	Core	Coil Length (m)
POLYPROPYLENE (PP) STRAP	AUTOMATIC	WHITE	8x0.60	200x150	4000
POLYPROPYLENE (PP) STRAP	AUTOMATIC	WHITE	12x0.60	200x150	3000
POLYPROPYLENE (PP) STRAP	AUTOMATIC	WHITE	12x0.80	400x150	2000
POLYPROPYLENE (PP) STRAP	AUTOMATIC	WHITE	8x0.60	200x150	4000
POLYPROPYLENE (PP) STRAP	AUTOMATIC	WHITE	10x0.60	200x150	3500
POLYPROPYLENE (PP) STRAP	AUTOMATIC	WHITE	12x0.60	200x150	3000
POLYPROPYLENE (PP) STRAP	AUTOMATIC	WHITE	12x0.80	400x150	2000
POLYPROPYLENE (PP) STRAP	MANUAL	WHITE	16x0.80	400x150	1500
POLYPROPYLENE (PP) STRAP	AUTOMATIC	BLACK	10x0.60	200x150	3500
POLYPROPYLENE (PP) STRAP	AUTOMATIC	BLACK	12x0.60	200x150	3000
POLYPROPYLENE (PP) STRAP	MANUAL	BLACK	16x0.80	400x150	1500

# Why Co-Strap Polyester Corded Straps?

**High breaking strength:**

All sorts of packaging, bailing and palletizing requirements can be easily met by using Co-Strap polyester corded strapping which is produced by using industrial polyester yarn with high breaking strength and high elongation at break.

**Safe usage:**

Co-Strap strapping products are manufactured from highly stretchable plastic materials. This prevents the goods and their packaging corners from incurring any harm or damage. In addition to all these, Co-Strap strapping products do not rust out and leave any stain at all.

**Resistance to all kinds of severe weather conditions:**

Co-Strap strapping products maintain their original shapes, sizes and stretching capacity in all sorts of severe weather conditions. They are also resistant to heat, sunlight (UV) and humidity within the range of following values: Composite Strap -10 C / 120 C . Textile Strap -40 C / +50 C.

**Economical hand tools:**

Co-Strap strapping products are not heavy and they can easily be applied by using cost effective and user friendly simple hand tools.

**Manual application:**

Co-Strap strapping products are light, practical and easy to use. Co-Strap strapping products can easily be applied safely by using manual hand tools without taking any precautions.

**Perfect elongation and elastic memory:**

The perfect elongation and elastic memory of both composite and textile straps help Co-Strap strapping products to keep their tightness in all sorts of applications.

Product		Composite Corded Strap	Textile Corded Strap	PET Strap	Steel Strap	PP Strap
Breaking Strength		Excellent	Excellent	Excellent	Excellent	Medium
Shock Resistance		Excellent	Medium	Excellent	Medium	Medium
Retained Tension		Excellent	Excellent	Medium	Excellent	Poor
Resistance to Weather Conditions	High Temp.	Medium	Medium	Poor	Excellent	Medium
	Low Temp.	Excellent	Medium	Excellent	Excellent	Medium
	Moisture	Excellent	Excellent	Excellent	Poor	Excellent
	UV Resistance	Excellent	Medium	Excellent	Excellent	Poor
Safety	Sharp Edge Possibility to Injuries	No	No	No	Yes	No
Cargo Damage		No	No	No	Yes	No



## POLYESTER COMPOSITE STRAPS

CO-STRAP Product Code	Width (mm)	Linear Break Strength (kgf)	Coil Length* (m)	Core Diameter (mm)
<b>LIGHT APPLICATION</b>				
CS13L	13	240	1100	200
CS16L	16	310	850	200
CS19L	19	330	600	200
CS25L	25	440	500	200
<b>STANDARD APPLICATION</b>				
CS13ST	13	340	1100	200
CS16ST	16	450	850	200
CS19ST	19	500	600	200
CS25ST	25	650	500	200
<b>STRONG APPLICATION</b>				
CS16STR	16	540	750	200
CS19STR	19	600	650 / 500	200
CS25STR	25	800	500	200
CS32STR	32	1150	300	406/200
CS34STR	32	1400	400 / 300	406/200
<b>EXTRA STRONG APPLICATION</b>				
CS25ESTR	25	1050	500 / 450	406/200
CS26ESTR	27	1350	400	200
CS32ESTR - ULTRAFLEX	32	1650	300	406/200
CS40ESTR - ULTRAFLEX	40	2450	220	406/200

## POLYESTER TEXTILE (HOTMELT) STRAPS

CO-STRAP Product Code	Width (mm)	Linear Break Strength (kgf)	Coil Length* (m)	Core Diameter (mm)
<b>BALE PRESS</b>				
WG9STBL	9	280	250 / 500	62
WG13STBL	13	380	250 / 350 / 500	62
WG16STBL	16	450	400 / 425	62
<b>LIGHT APPLICATION</b>				
WG9L	9	230	1800	76
WG13L	13	330	1500 / 1100	76
WG16L	16	380	1200 / 850	76
WG19L	19	500	600	76
<b>STANDARD APPLICATION</b>				
WG9ST	9	280	1500	76
WG13ST	13	380	1100	76
WG16ST	16	450	850	76
WG19ST	19	550	600	76
<b>STRONG APPLICATION</b>				
WG13STR	13	550	850	76
WG16STR	16	620	600	76
WG19STR	19	770	500	76
WG25STR	25	1000	500	76
WG30STR	30	1200	150	76
WG35STR	35	1400	150	76
<b>EXTRA STRONG APPLICATION</b>				
WG19ESTR	19	1000	400	76
WG25ESTR	25	1250	400	76
WG38ESTR	38	2000	100	76

\*: Different coil lengths are available upon request

\*: Printed straps are available upon request

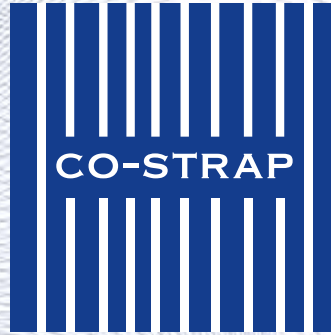


TT Industrial Packaging is a



Talu  
Trade  
Group

Company.



**TT ENDÜSTRİYEL AMBALAJ MAKİNA SAN. ve TİC. LTD. ŞTİ.**

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Tel: +90 216 365 21 13 • Fax: +90 216 365 21 90

Head Office Address : Fulya Mahallesi Vefa Aralığı Sokak No:2 D.13 Sisli / İSTANBUL / TURKEY

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Company Address: 91541 Rothenburg ob der Tauber, Germany

Warehouse Address: 15566 Schöneiche bei Berlin, Germany

[www.co-strap.com](http://www.co-strap.com)