TT Industrial Packaging is a TTG Talu Trade Group **Company.**

CO-STRAP

INDEX

ASSOCIATION OF AMERICAN RAILROADS (AAR-98)

GERMANISCHER LLOYD APPROVED
DNV·GL

TÜV NORD
TÜV NORD CERT GmbH
ISO 9001

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www.co-strap.com

Composite Straps

Printed Composite Straps
Ultraflex Quality
Strapping Kits
Colored Corded 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 Llyod approved

POLYESTER COMPOSITE STRAPS

CO-STRAP Product Code	Width (mm)	Linear Break Strength (daN)	Coil Length* (m)	Core Diameter (mm)
LIGHT APPLICATION				
CS13L (CC-40/2)	13	240	1100	200
CS16L (CC-50/2)	16	310	850	200
CS19L (CC-60/2)	19	330	600	200
CS25L	25	440	500	200
STANDARD APPLICATION				
CS13ST (CC-40)	13	340	1100	200
CS16ST (CC-50)	16	450	850	200
CS19ST (CC-60)	19	510	600	200
CS25ST	25	690	400 / 500	200
STRONG APPLICATION				
CS16STR (CC-55)	16	540	750 / 600	200
CS19STR (CC-65)	19	600	650 / 500	200
CS25STR (CC-85)	25	800	500	200
CS32STR (CC-105/6L)	32	1150	300	406/200
CS34STR (CC-105/6)	34	1400	400 / 300	406/200
EXTRA STRONG APPLICATION				
CS19ESTR - ULTRAFLEX (CC-69)	19	850	500	406/200
CS25ESTR - ULTRAFLEX (CC-86UF)	25	1050	500 / 450	406/200
CS26ESTR - ULTRAFLEX (CC-89UF)	26	1350	400	406/200
CS32ESTR - ULTRAFLEX (CC-105UF)	32	1650	300	406/200
CS40ESTR - ULTRAFLEX (CC-150UF)	40	2450	220	406/200

Textile Hotmelt Straps

Printed Textile Straps
Bale Press Strapping
Dispenser Box Set
Strapping Kits
Colored Corded 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 east to use*
- *Soft and can be used without buckle*
- *Printing with company name and/or logo on the straps is available*
- *Germanischer Llyod approved*

POLYESTER TEXTILE (HOTMELT) STRAPS

CO-STRAP Product Code	Width (mm)	Linear Break Strength (daN)	Coil Length* (m)	Core Diameter (mm)
BALE PRESS				
WG9STBL (30WG BL)	9	280	250 / 500	62
WG13STBL (40WG BL)	13	380	250 / 350 / 500	62
WG16STBL (50WG BL)	16	450	400 / 425	62
LIGHT APPLICATION				
WG9L (30WGL)	9	230	1800	76
WG13L (40WGL)	13	330	1500 / 1100	76
WG16L (50WGL)	16	380	1200 / 850	76
WG19L (60WGL)	19	500	600	76
STANDARD APPLICATION				
WG9ST (30WG)	9	280	1500	76
WG13ST (40WG)	13	380	1100	76
WG16ST (50WG)	16	450	850	76
WG19ST (60WG)	19	550	600	76
STRONG APPLICATION				
WG13STR (45WG)	13	550	850	76
WG16STR (55WG)	16	600	600	76
WG19STR (65WG)	19	725	500	76
WG25STR (85WG)	25	950	500	76
WG30STR (95WG)	30	1200	150	76
WG35STR (105 or 105/4WG)	35	1400	150	76
EXTRA STRONG APPLICATION				
WG19ESTR (69WG)	19	950	400	76
WG25ESTR (86WG)	25	1250	400	76
WG38ESTR (150WG)	38	2000	100	76

* : Different coil lengths are available upon request
* : Printed straps are available upon request

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 (daN)	Coil Length* (m)	Core Diameter (mm)
Standard Application				
WV13ST	13	360	1100	76
WV16ST	16	500	850	76
WV19ST	19	580	600	76
Strong Application				
WV13STR	13	475	850	76
WV16STR	16	600	600	76
WV19STR	19	750	500	76
WV25STR	25	1000	500	76
Extra Strong Application				
WV19ESTR	19	1100	400/500	76
WV19ESTX	19	1225	400/500	76
WV25ESTR	25	1400	300	76
WV32ESTR	32	1500	300	76

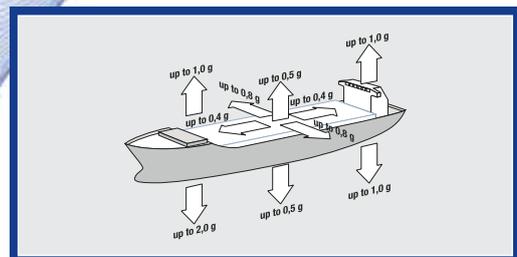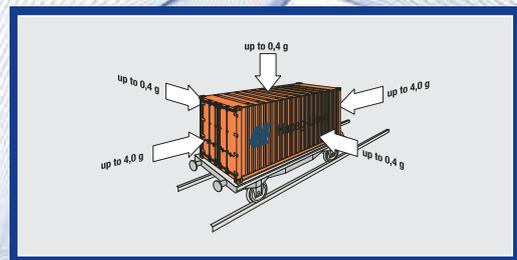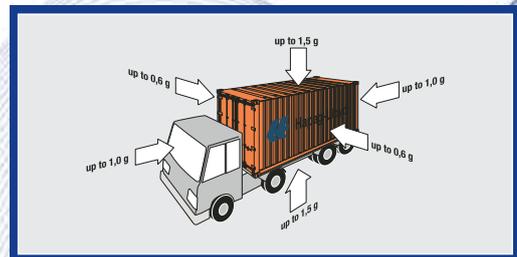* : Different coil lenghts are available upon request

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 portable • Does not rust out

Lashing			
CO-STRAP Product Code	Width (mm)	Linear Break Strength (daN)	Coil Length* (m)
COLASH 100	25	2200	400
COLASH 105	32	2000	250
COLASH 105 S	32	2300	250
COLASH 150-AAR	38	3500	200
COLASH 200-AAR	40	5000	200
COLASH 500	50	5000	150
COLABH 600	50	6000	150
COLASH 750-AAR	50	7500	150

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	Width (mm)	Wire Ø	Quantity Per Box (pcs)
COB4G13	13	3.0	1000
COB4G13-STD	13	3.3	1000
COB5G16	16	3.3	1000
COB5G16-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	Width (mm)	Wire Ø	Quantity Per Box (pcs)
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

CO-DISP101   Hotmelt and Woven Strap Dispenser
- Core size(mm)   : 76
- Max. strap width(mm)   : 38
- Max. face coil(mm)   : 200
- Coil winding   : O
- Wheel type   : No wheel
- Assembled   : Semi
- **Coil winding   : R means Ribbon coil.
                                    O means Oscillated/Mill Wound coil.

CO-DISP102   Hotmelt and Woven Strap Dispenser
- Core size(mm)   : 76
- Max. strap width(mm)   : 38
- Max. face coil(mm)   : 260
- Coil winding   : O
- Wheel type   : 6" Plastic
- Assembled   : Semi
- **Coil winding   : R means Ribbon coil.
                                    O means Oscillated/Mill Wound coil.

CO-DISP103 UNI   Universal PET & PP & Composite Strap Dispenser
- Core size(mm)   : 150, 200, 280 and 400
- Max. strap width(mm)   : 65
- Max. face coil(mm)   : 330
- Disc outer dia (mm)   : Max. 600
- Coil winding   : O
- Wheel type   : 6" Rubber with steel center
- Assembled   : Semi
- **Coil winding   : R means Ribbon coil.
                                    O means Oscillated/Mill Wound coil.

CO-DISP104   Composite Strap and PP Strap Dispenser
- Core size(mm)   : 200
- Max. strap width(mm)   : 40
- Max. face coil(mm)   : 300
- Disc outer dia (mm)   : Max. 450
- Coil winding   : O
- Wheel type   : 6" Plastic
- Assembled   : Semi
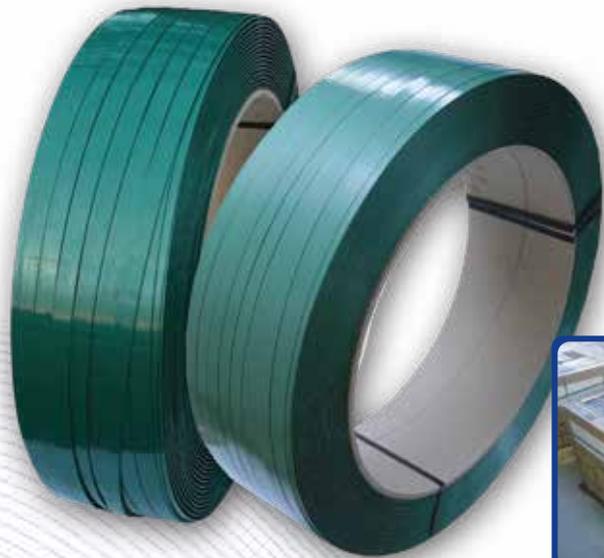- **Coil winding   : R means Ribbon coil.
                                    O means Oscillated/Mill Wound coil.

CO-DISP105-UNI   Universal Composite Strap, PET Strap, Steel Strap and PP Strap Dispenser
- Core size(mm)   : 400
- Max. strap width(mm)   : 32
- Max. face coil(mm)   : 260
- Disc outer dia (mm)   : Max. 650
- Coil winding   : R/O
- Wheel type   : 8" Rubber with steel center
- Assembled   : Semi
- **Coil winding   : R means Ribbon coil.
                                    O means Oscillated/Mill Wound coil.

PET Straps

PET Straps can be used in fully automatic pallet strapping machines during the packaging of products witch 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 condiditons • No cargo damage • Don't get loose • Safe and fast usage

PET Straps

CO-STRAP Product Type	Size (mm)	Linear Break Strength (daN)	Length (m)	Color	Surface
POLYESTER (PET) STRAP	12x0.70	340	2500	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	1700	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	1000	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

PP Straps

Teufelberger
Together in Motion

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

PP Straps

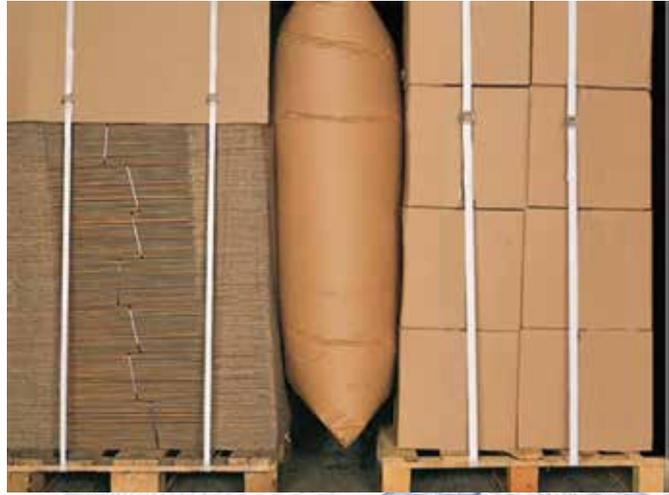| CO-STRAP Product Type	Type	Color	Size (mm)	Core (mm)	Coil Length (m)
POLYPROPYLENE (PP) STRAP	AUTOMATIC	WHITE	8x0.60	200x150	4000
POLYPROPYLENE (PP) STRAP	AUTOMATIC	WHITE	12x0.60	200x150	3000
POLYPROPYLENE (PP) STRAP	AUTOMATIC	WHITE	12x0.80	400x150	2000
POLYPROPYLENE (PP) STRAP	AUTOMATIC	WHITE	8x0.60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

Dunnage Bags

Dunnage Bags provide the most cost-effective solutions to secure and stabilize the cargo inside the container, railway wagon or truck.

Dunnage bags ensure you that freight arrives at the final destination without any damage.

During long sea and railway shipments, it is necessary to fix the pallets in the container to prevent rubbing with each other, to eliminate the risk of overturning, etc.

There are two kinds of Dunnage bags: Polypropylene Woven and Kraft Paper.

The sizes and dimensions vary according to the weight of the pallets, the dimensions and the internal dimensions of the container.

At the same time, there are classifications which are called Levels in terms of quality (strength) of Dunnage Bags.

• Kraft Paper Dunnage Bags
• Polypropylene Woven Dunnage Bags
• Inflation Devices

ECO LINE LEVEL 1, LEVEL 2, LEVEL 3, LEVEL 4, LEVEL 5, DUNNAGE AIR BAG DIMENSIONS	
Dimension (inch)	Dimension (cm)
24" x 36"	61 x 91
36" x 48"	91 x 122
36" x 72"	91 x 183
48" x 72"	122 x 183
48" x 84"	122 x 213

* : Other Dimensions are also avaible upon request

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 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

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; there is no need for strapping tools!*