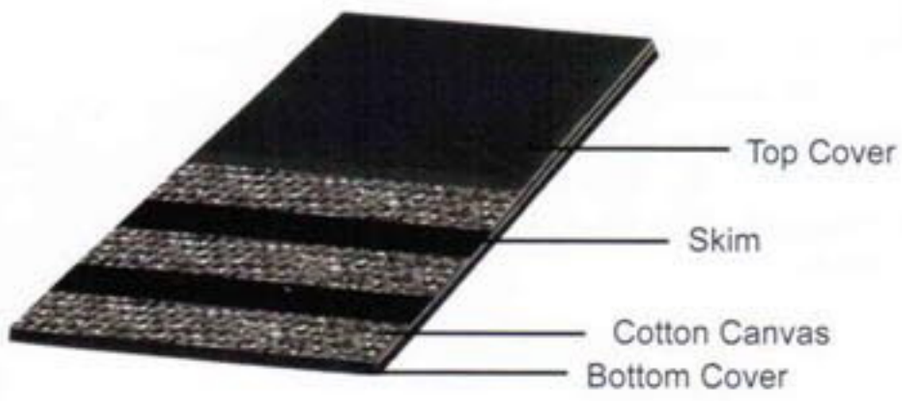
Conveyor Belt

Cotton Conveyor Belt



FEATURES

- The carcass of this belt is made from cotton/cotton fabric both in warp and weft or terelyene/cotton fabric in warp and cotton fabric in weft.
- This type of belt will exhibit good flexibility, excellent trough-forming ability and is an economical solution for your conveying needs.

APPLICATIONS

- Best suited for conveying products in short distance and suitable for but not limited to conveying of powder, granules and weak abrasive materials such as sawdust, grain, coal and cements, etc. .
- Operating temperature: -10℃ ~ 60℃

BELT TYPES

Belt types include normal, oil resistant, acid and alkali resistant, cold resistant and anti-static grades.

TECHNICAL DATA

Standard: In accordance to ISO/FDIS 14890:1999

Performance at Overall Thickness

Fabric Type	Ply Thickness (mm)	Nominal Tensile Strength at Overall Thickness (N/mm)					Longitudinal Elongation at Break (%)	Longitudinal Elongation at Rated Stress (%)	Belt Width (mm)	Standard Belt Length (M)
		2ply	3ply	4ply	5ply	6ply				
Cotton CC-56	1.0	112	168	224	280	336	≥10	≤4	300 ~ 1500	200
Terylene Cotton TC-70	1.0	140	210	280	350	420				

Note: Belt length can be customized on request and the maximum length is no more than300m.

Performance of Cover Rubber (for General Applications)

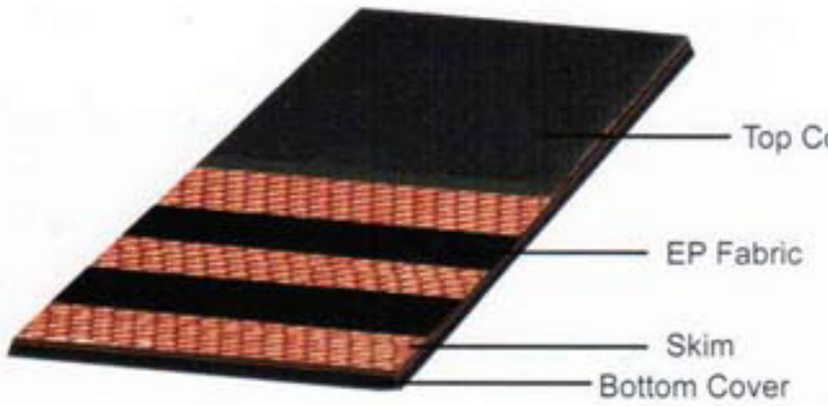
Cover Grade	Tensile Strength		Elongation at Break (%) ≥	Abrasion Loss (mm^3) ≤	Change Rate of Tensile Strength & Elongation after Aging (%)
	(MPa) ≥	(Kg/cm^2) ≥			
Ordinary Applications (L)	15.0	150.0	350	200	-25 ~ +25
Abrasion Resistant (D)	18.0	180.0	400	100	-25 ~ +25
Extreme Tear Resistant (H)	24.0	240.0	450	120	-25 ~ +25
When cover rubber thickness ranging from 0.8~1.60mm, it allows 15% tolerance of tensile strength. Aging Test: 70℃×168h.					

Note: The cover rubber performance for other belt types like **oil resistant, acid and alkali resistant, cold resistant and anti-static belt,** please refer to the corresponding belt introduction.

Adhesion-Ply to Ply

Item	Canvas Ply to Canvas Ply	Cover to Canvas Ply	
		Cover Thickness 0.8-1.5mm	Cover Thickness >1.5mm
Average Value of Samples (N/mm) ≥	3.2	2.1	2.7
Minimum Value of Samples (N/mm) ≥	2.7	1.6	2.2
The peak value of all samples is less than 20N/mm.			

EP Conveyor Belt



FEATURES

- The carcass consists of Terylene fabric in warp and Polyamide in weft.
- High tensile strength, good resistance to fatigue, low elongation rate in warp, good trough-forming ability in weft, etc.
- Suitable for high humidity applications and exhibit good water resistance, stable tensile strength with no mildew growth under wet/humid conditions. EP belts also exhibit a high modulus at start up with good dimensional stability and smoother running.
- EP belts also offer good impact and tear resistant properties owning to the addition of reinforced ply in its latitude carcass construction.
- Manufactured by forming and vulcanizing.

APPLICATIONS

- Widely used for medium and long distance, heavy loading, high speed, severe corrosion conveying applications.
- Anti-impact and tear resistant belts are suitable for applications where large materials with relative density up to 2.5g/cm^3 to be loaded and with a falling head of more than 1m.

BELT TYPES

Types by Applications: Including general purpose conveyor belts, oil resistant, acid and alkali resistant, cold resistant, anti-static, flame retardant and abrasion resistant belt.

Types by Structure: Aside from the laminated structure, there's anti-impact and tear resistant belt with reinforced ply in weft.

TECHNICAL DATA

Standard: In accordance to ISO/FDIS 14890:1999

Performance at Overall Thickness

Fabric Type	Ply Thickness (mm)	Nominal Tensile Strength at Overall Thickness (N/mm)					Elongation at Break (%)	Elongation at Rated Stress (%)	Belt Width (mm)	Belt Length (M)
		2ply	3ply	4ply	5ply	6ply				
EP80	0.60	160	240	320	400	480				
EP100	0.70	200	300	400	500	600				
EP125	0.70	250	375	500	625	750				
EP150	0.80	300	450	600	750	900				
EP200	1.0	400	600	800	1000	1200	≥10	≤4	300 ~ 1500	≤300
EP250	1.20	500	750	1000	1250	1500				
EP300	1.25	0	900	1200	1500	1800				
EP350	1.30	0	0	1400	1750	2100				
EP400	1.40	0	0	1600	2000	2400				

Performance of Cover Rubber (for General Applications)

Cover Grade	Tensile Strength		Elongation at Break (%) ≥	Abrasion Loss (mm^3) ≤	Change Rate of Tensile Strength & Elongation after Aging (%)
	(MPa) ≥	(Kg/cm^2) ≥			
Ordinary Applications (L)	15.0	150.0	350	200	-25 ~ +25
Abrasion Resistant (D)	18.0	180.0	400	100	-25 ~ +25
Extreme Tear Resistant (H)	24.0	240.0	450	120	-25 ~ +25

When cover rubber thickness ranging from 0.8~1.60mm, it allows 15% tolerance of tensile strength.
Aging Test: 70℃×168h.

Note: The cover rubber performance for other belt type like oil resistant, acid and alkali resistant, cold resistant and anti-static belt, please refer to the corresponding belt introduction.

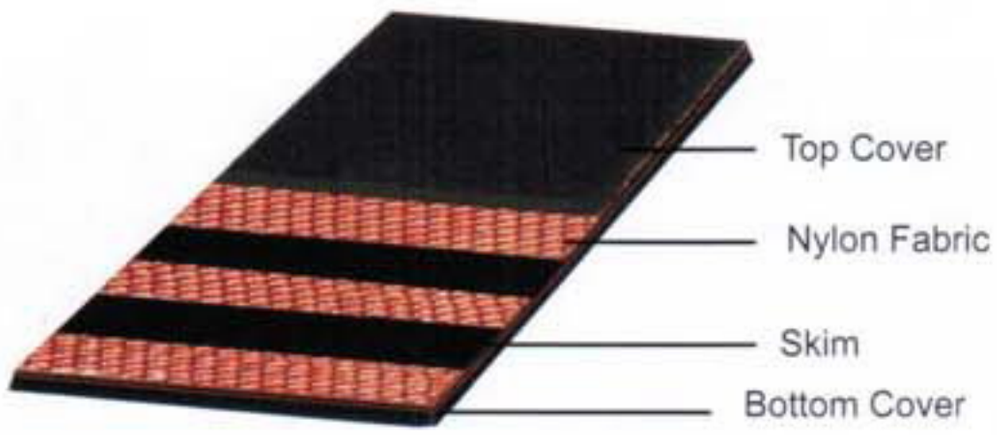
Adhesion-Ply to Ply

Item	Canvas Ply to Canvas Ply	Cover to Canvas Ply	
		Cover Thickness 0.8-1.5mm	Cover Thickness >1.5mm
Average Value of Samples (N/mm) ≥	4.5	3.2	3.5
Minimum Value of Samples (N/mm) ≥	3.9	2.4	2.9
The peak value of all samples is less than 20N/mm.			

sanwei

The Widest Range of Bulk Materials Handling Products

Nylon Conveyor Belt



FEATURES

- The carcass consists of Nylon filament both in warp and weft matrix.
- Light thin gauge belt body with a highly abrasion resistant, dense woven carcass, resistant to stress cracking, with added benefits of long operational life and great impact resistance.
- Reinforced latitude carcass leads in better anti-impact and tear resistance.
- Good flexibility, trough-forming ability and elasticity.
- Manufactured by forming and vulcanizing.

APPLICATIONS

- Widely used for medium and long distance, heavy-duty transportation of materials.
- Suitable for both loose and compacted mine products.
- Anti-impact and tear resistant belts are suitable for applications where large materials with relative density up to 2.5g/cm^3 to be loaded and with a falling head of more than 1m.

BELT TYPES

- **Types by Applications:** Including general purpose conveyor belts, oil resistant, acid and alkali resistant, cold resistant, anti-static, flame retardant and abrasion resistant belt.
- **Types by Structure:** Aside from the laminated structure, there's anti-impact and tear resistant belt with reinforced ply in weft.

TECHNICAL DATA

Standard: In accordance to ISO/FDIS 14890:1999

Performance at Overall Thickness

Fabric Type	Ply Thickness (mm)	Nominal Tensile Strength at Overall Thickness (N/mm)					Elongation at Break (%)	Elongation at Rated Stress (%)	Belt Width (mm)	Belt Length (M)
		2ply	3ply	4ply	5ply	6ply				
NN100	0.70	200	300	400	500	600	≥10	≤4	300 ~ 1500	≤300
NN125	0.75	250	375	500	625	750				
NN150	0.80	300	450	600	750	900				
NN200	1.0	400	600	800	1000	1200				
NN250	1.20	500	750	1000	1250	1500				
NN300	1.25	0	900	1200	1500	1800				
NN400	1.40	0	0	1600	2000	2400				
NN500	1.60	0	0	2000	2500	3000				

Performance of Cover Rubber (for General Applications)

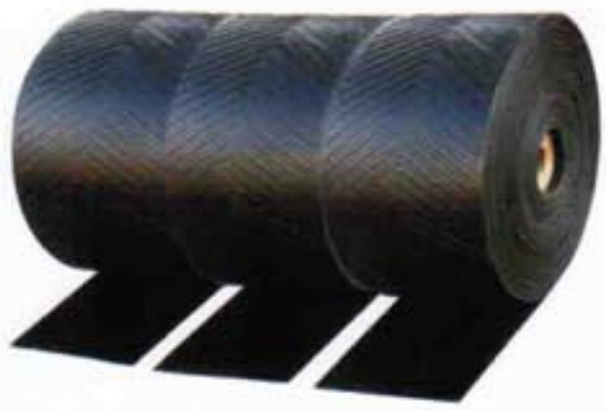
Cover Grade	Tensile Strength		Elongation at Break (%) ≥	Abrasion Loss (mm3) ≤	Change Rate of Tensile Strength & Elongation after Aging (%)
	(MPa) ≥	(Kg/cm2) ≥			
Ordinary Applications (L)	15.0	150.0	350	200	-25 ~ +25
Abrasion Resistant (D)	18.0	180.0	400	100	-25 ~ +25
Extreme Tear Resistant (H)	24.0	240.0	450	120	-25 ~ +25
When cover rubber thickness ranging from 0.8~1.60mm, it allows 15% tolerance of tensile strength. Aging Test: 70℃×168h.					

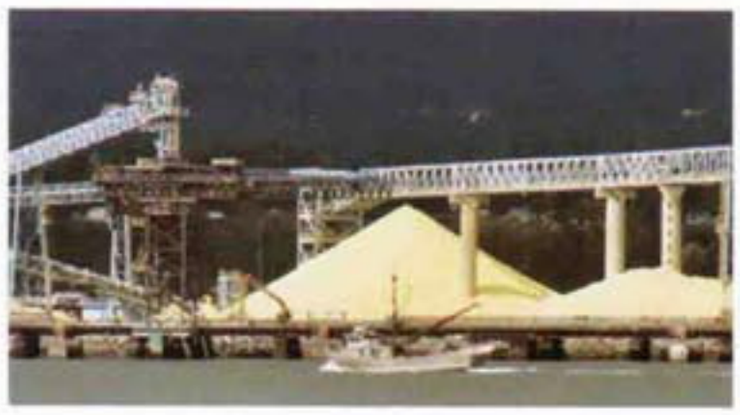
Note: The cover rubber performance for other belt type like oil resistant, acid and alkali resistant, cold resistant and anti-static belt, please refer to the corresponding belt introduction.

Adhesion-Ply to Ply

Item		Canvas Ply to Canvas Ply	Cover to Canvas Ply	
			Cover Thickness 0.8-1.5mm	Cover Thickness >1.5mm
Average Value of Samples	(N/mm) ≥	4.50	3.2	3.5
Minimum Value of Samples	(N/mm) ≥	3.90	2.4	2.9
The peak value of all samples is less than 20N/mm.				

Pattern Conveyor Belt





FEATURES

- The carcass is made from EP fabric, Nylon fabric, Cotton or Terylene Cotton fabric, etc. The belt is manufactured by forming and vulcanizing.
- The patterns available: Chevron / Herringbone / Round Concave.
- Generally the conveyed angle could be up to 35 degrees, for bulk material could be up to 28 degrees.
- Convex type: raised on top cover, the "open" pattern is suitable for conveying material with box packaging or bags packaging and "close" pattern suitable for bulk materials as well as box packaging or bags packaging.
  Concaved type or Round Concave: dented in the top cover, mostly used for bulk materials.
- The depth of pattern less than 10mm applies to conveyed angle less than 20 degrees.
- The depth of pattern more than 10mm applies to conveyed angle range from 20-40 degrees.

APPLICATIONS

Apply to conveying materials such as powder, granules, knobs as well as packaged materials at angle less than 40 degrees.

BELT TYPES

The belts include general use, oil-resistant, acid-alkali resistant, cold resistant, static conductive, fire retardant, wear resistant and heat resistant types, etc..

TECHNICAL DATA

Standard: In accordance to ISO/FDIS 14890:1999

Adhesion Strength

Fabric Type	Item	Canvas Ply to Canvas Ply (N/mm)	Cover to Canvas Ply	
			Cover Rubber Thickness ≤1.50mm	Cover Rubber Thickness >1.50mm
Cotton-CC56 Terylene Cotton-TC70	Average Value of Samples in Warp ≥	3.20	2.10	2.70
	Minimum Value of Sample in Warp	2.7	1.60	2.2
Polyester-EP Nylon-NN	Average Value of Samples in Warp ≥	4.50	3.20	3.50
	Minimum Value of Sample in Warp	3.90	2.40	2.90
The peak value of all samples are less than 20N/mm.				

Performance of Cover Rubber (for General Applications)

Cover Grade	Tensile Strength		Elongation at Break (%) ≥	Abrasion Loss (mm^3) ≤	Change Rate of Tensile Strength & Elongation after Aging (%)
	(MPa) ≥	(Kg/cm^2) ≥			
Ordinary Applications (L)	15.0	150.0	350	200	-25~+25
Abrasion Resistant (D)	18.0	180.0	400	100	-25~+25
Extreme Tear Resistant (H)	24.0	240.0	450	120	-25~+25

When cover rubber thickness ranging from 0.8~1.60mm, it allows 15% tolerance of tensile strength.
Aging Test: 70℃×168h.

Oil Resistant Belt

FEATURES

The carcass is made from Polyester fabric, Nylon fabric, Cotton or Terylene Cotton fabric, etc. Choosing proper rubber material according to the type of oily materials being transported as the cover rubber, the belt is manufactured by forming and vulcanizing.

APPLICATIONS

Main applications are vegetable oil processing plants, petroleum scoria plants and mineral sands plants, or any other applications where oil based materials need to be transported.

TECHNICAL DATA

Item					Value
Rubber Cover Performance	Tensile strength	Y1: Extreme Abrasion Resistance (MPa) ≥			18
		Y2: General Working Conditions (MPa) ≥			15
	Elongation at Breaking (%) ≥				350
	Abrasion Loss (mm3) ≤				200
	Oil Resistance	**Type**	**Temperature**	**Oily Material**	**72 Hours under Normal Temperature**
		Y1	-30℃-70℃	Mineral Oil, Organic Solvent	Volume Expansion Rate ≤ 20%
		Y2	-30℃-70℃	Vegetable Oil, Animal Fat	Volume Expansion Rate ≤ 50%
Adhesion Strength	Cover to Canvas Ply			(N/mm) ≥	2.70
	Canvas Ply to Canvas Ply	Cotton Fabric & Terylene Cotton Fabric			2.70
		Polyester Fabric& Nylon Fabric			4.50

The Widest Range of Bulk Materials Handling Products

Heat Resistant & High Temperature Resistant Belt

FEATURES

The carcass is made from high modulus, low shrink Polyester fabric, Cotton fabric, Cotton or Terylene/Cotton fabric. Choosing heat resistant or high temperature resistant rubber material as the cover rubber, the belt is manufactured by forming and vulcanizing.

APPLICATIONS

Suitable for using in the field of metallurgy industry and construction where there is the need to convey hot materials such as sinter, coke, cement clinker as well as numerous other industries that need High Temperature Resistant Conveyor Belting.

BELT TYPES

Heat Resistant

T1: Suitable for using at temperature from 60-125 deg C continuous rated, and temperature of 150 deg C intermittently.

T2: Suitable for using at temperature from 125-150 deg C continuous rated, and temperature of 180 deg C intermittently.

High Temperature Resistant

T3: Suitable for using at temperatures up to 180 deg C continuous rated, and temperature of 230 deg C intermittently.

Grade	Fabric Type	Structure		Cover Rubber Thickness (mm)		Belt Width (mm)	Belt Length (M)
		Warp	Weft	Top	Bottom		
T1 T2	Cotton/Cotton CC-56	Cotton	Cotton	≥4.5	1.0~4.5	300~1500	≤300
	Terelyne/Cotton TC-70	Terylene Cotton	Cotton				
	EP80~EP400	Terylene	Nylon				
T3	TNGEP80~TNGEP400	Low Shrinkage Terylene	Nylon	≥6.0			

TECHNICAL DATA

Standard: In accordance to HG2297-92

Physical & Mechanical Performance after Heating and Aging Test

Item			Grade		
			T1	T2	T3
			Value		
Hardness	(IRHD) Difference after aging		---	---	±20
	(IRHD) Max value after aging		85		
Tensile Strength	Variable Rate of Performance	(%) ≤	25	30	40
	Minimum Value after Aging	(MPa)	12	10	5
Elongation at Break	Variable Rate of Performance	(%) ≤	50		55
	Minimum after Aging	(MPa)	200		180
Abrasion Loss		(mm^3)	200	250	250

Adhesion Strength-Ply to Ply

Fabric Type	Item	Canvas Ply to Canvas Ply	Cover to Canvas Ply	
			Cover Rubber Thickness ≤ 1.50mm	Cover Rubber Thickness > 1.50mm
Cotton-CC56 Terylene Cotton-TC70	Average Value of Samples in Warp ≥	3.0	2.20	2.60
	Minimum Value of Samples in Warp	2.0	1.60	2.0
Polyester-EP Polyester-TNG EP	Average Value of Samples in Warp ≥	6.0	3.80	4.50
	Minimum Value of Samples in Warp	3.50	3.20	3.50

How to Get Proper Belt?

Following factors need to be considered to get proper belt

- Materials temperature, shape, adhesive parameter, etc.
- When conveying big size materials such as sinter, coke etc with high temperature around 150 degree C, also with small contact area with the belt, the belt surface temperature will be between 60-80 degree C.
- It will be small difference in temperature between belt surface and material when conveying low adhesion materials such as cement, flour etc.
- Belt surface temperature affects directly belt life time, so that full investigation on belt surface temperature need to be done before choosing the proper grade for the heat and high temperature resistant belt.

Maintenance and Inspection

- Keep regularly inspecting and consistent measuring to be sure belt surface temperature at reasonable level.
- We strongly recommend that heat resistant belts to be cooled on the return course by water spray or other suitable cooling methods. Always try to evenly distribute materials across the width of the belt so as to reduce the heat concentration in the center of the belt.
- Oil contained in cooling water or in materials will be very harmful to the life of belt, even worse than heat itself, thus the oil must be prevented. The heat materials should be unloaded once belt stops working.
- Hot vulcanization joint is recommended.

Acid-alkali Resistant Belt

FEATURES

The carcass is made from Polyester fabric, Nylon fabric, Cotton or Terylene & Cotton fabric, etc.. Choosing acid/alkali resistant materials as cover rubber, the belt is manufactured by forming and vulcanizing. It has good properties of chemical and corrosion resistance.

APPLICATIONS

Perfectly suited to materials transportation that contains weak acid or alkali based chemicals such as those found in chemical plants, fertilizer plants, paper mills and many more.

TECHNICAL DATA

Item				Value
Rubber Cover Performance	Tensile Strength		(MPa) ≥	10
	Elongation at Breaking		(%) ≥	300
	Abrasion Loss		(mm3) ≤	200
	Acid Resistant Coefficience:	Test 24h under Normal Temperature		0.70
Adhesion Strength	Cover to Canvas Ply		(N/mm) ≥	2.70
	Canvas Ply to Canvas Ply	Cotton Fabric & Terylene Cotton Fabric		2.70
		Polyester Fabric & Nylon Fabric		4.50

Cold Resistant Belt

FEATURES

The carcass is made from Polyester fabric, Nylon fabric, Cotton fabric, or Terylene & Cotton fabric, etc. Adopting lower crystal rubber materials as cover rubber, it allows our Cold Resistant Belt to maintain excellent elasticity and impact resistance at temperature of – 40 degree C. The belt is manufactured by forming and vulcanizing.

APPLICATIONS

Ideally suited to applications in the open air of cold environments or freezer stores/warehouses.

TECHNICAL DATA

Performance of Cover Rubber

Cover Grade	Tensile Strength		Elongation Rate at Break (%) ≥	Abrasion Loss (mm^3) ≤	Change Rate of Tensile Strength & Elongation after Aging (%)
	(MPa) ≥	(Kg/cm^2) ≥			
Ordinary Conditions (L)	15.0	150.0	350	200	-25~+25
Abrasion Resistant (D)	18.0	180.0	400	100	-25~+25
Cut & Gauge Resistant (H)	24.0	240.0	450	120	-25~+25

When cover rubber thickness ranging from 0.8~1.60mm, it allows 15% tolerance of tensile strength
Aging Test: 70℃×168h

Cold Resistant Grade

C1-- Suitable for temperature from –45 - +50℃

C2-- Suitable for temperature from –60 - +50℃