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## CONVEYOR BELTS

### HEAVY DUTY RUBBER CONVEYOR BELTS



# TYPES OF



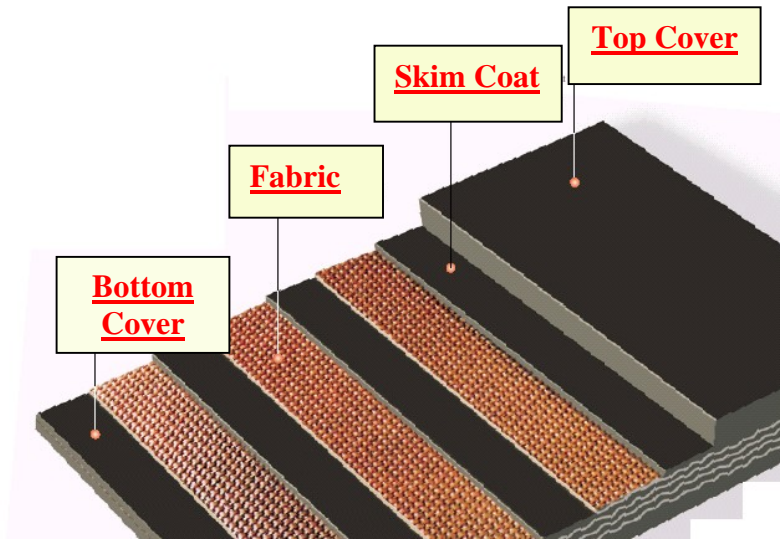
# CONVEYOR BELTS

- **General Conveyor belt**
  - Nylon/nylon Conveyor belt,
  - Polyester/nylon Conveyor belt
- **Heavy Abrasion Resistant Conveyor belt**
- **Quarry Supreme Conveyor belt**
- **Single-Ply Conveyor belt**
- **Chemical Resistant Conveyor belt**
- **Heat Resistant Conveyor belt**
- **Oil Resistant Conveyor belt**
- **Heat & Oil Resistant Conveyor belt**
- **Flame Resistant Conveyor belt**





# CONVEYOR BELT CONSTRUCTION



**Bottom Cover** Excellent in abrasion & flexibility, provides surface friction to pulleys & idlers

**Carcass/fabric** Extremely low stretch characteristic of fabric with good troughability

**Skim/coating** Compounded for excellent adhesion between plies for protecting against ply separation

**Top cover** Design to protect the carcass from service conditions like oil, heat, abrasion etc.





## SELECTION OF CONVEYOR BELT

### COVER RUBBER GRADE FOR GENERAL PURPOSE BELT

<b>RMA-1</b> <b>DIN-X, M</b> <b>BS-M24</b> <b>AS-M</b> <b>JIS-S</b>	These cover rubber grades have the characteristics to provide the highest abrasion resistance & cut-and-gouge resistance as well as ozone resistant. These cover rubbers are used for heavy impact, large sized lumps, and sharp material		
RUBBER GRADE	TENSILE STRENGTH Min (Mpa.N/mm <sup>3</sup> )	ELONGATION Min (%)	ABRASION LOSS Max (mm <sup>3</sup> )
DIN-X	25	450	120
DIN-M(RMA-1)	25	450	150
AS-M	24	450	125

<b>RMA-2</b> <b>DIN-Y, N</b> <b>BS-N17</b> <b>AS-N</b> <b>JIS-G</b>	These cover rubber grades are widely used for general purpose with resistance to abrasion, ozone, cutting and gouging and suitable for handling crushed rock, limestone, coal, slag, etc.		
RUBBER GRADE	TENSILE STRENGTH Min (Mpa.N/mm <sup>3</sup> )	ELONGATION Min (%)	ABRASION LOSS Max (mm <sup>3</sup> )
DIN-Y	20	400	150
DIN-N(RMA-2)	20	400	200
AS-N	17	400	200

### APPLICATION

Suitable for wide ranges of operating conditions. The bulk handling conveyor belt is widely utilized in the industrial fields of mining, engineering works, cement, quarry and aggregate industries. Depending on the cover rubber selection, the belts are suitable for both conveyor and elevator services.



# NYLON / POLYESTER CONVEYOR BELT

## NYLON FABRIC (NN) CONVEYOR BELT

ITEM	GRADE	NN100	NN120	NN150	NN200	NN250	NN300	NN350	NN400	NN500
Min Tensile Strength	Kg/cm-ply	100	120	150	200	250	300	350	400	500
	Lb/in-ply	560	672	840	1'120	1'400	1'680	1'960	2'240	2'800
Working Tension Rating (Vulcanized)	Kg/cm-ply	8.4	10.0	12.5	16.7	20.8	25.0	29.2	33.3	41.7
	Lb/in-ply	46.7	56.0	70.0	93.3	116.7	140.0	163.3	186.7	233.3
Approx. Gouge per Ply with skim coat	Mm	0.70	0.85	0.90	1.15	1.20	1.35	1.60	1.70	2.10
	inch	0.028	0.034	0.035	0.045	0.047	0.053	0.063	0.067	0.083

### Special Features

- Exceptional shock & impact resistance to the carrying surface
- Superior in mechanical fastener holding ability
- Excellent throughability and flexibility
- Smaller pulley diameter required
- Good resistance to water and mildew

## POLYESTER FABRIC (EP) CONVEYOR BELT

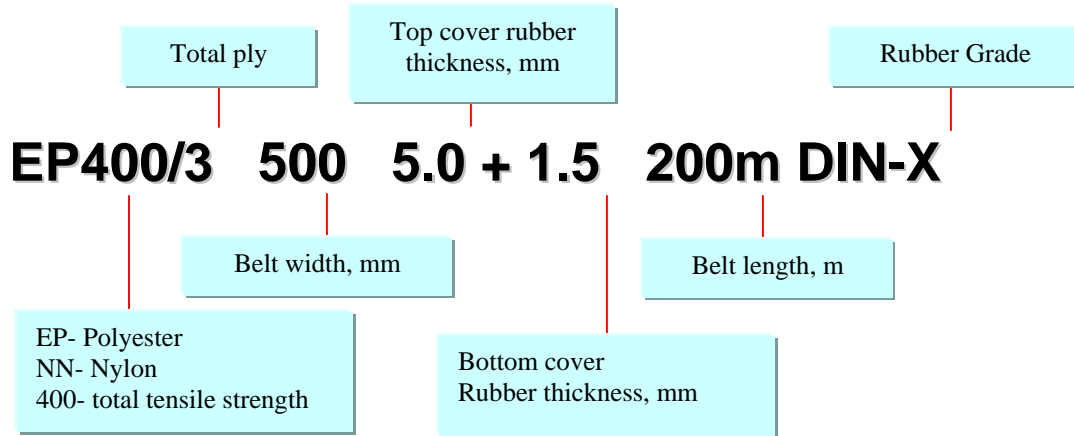
ITEM	GRADE	EP100	EP120	EP150	EP200	EP250	EP300	EP350	EP400	EP500
Min Tensile Strength	Kg/cm-ply	100	120	150	200	250	300	350	400	500
	Lb/in-ply	560	672	840	1'120	1'400	1'680	1'960	2'240	2'800
Working Tension Rating (Vulcanized)	Kg/cm-ply	10.0	12.5	15.0	20.0	25.0	30.0	35.0	40.0	50.0
	Lb/in-ply	56.0	70.0	84.0	112.0	140.0	168.0	200.0	224.0	280.0
Approx. Gouge per Ply with skim coat	Mm	0.75	0.90	1.00	1.20	1.30	1.50	1.70	2.20	2.80
	inch	0.030	0.035	0.039	0.047	0.051	0.059	0.067	0.087	0.110

### Special Features

- High resistance to tension
- Low elongation
- Outstanding dimension stability
- Impact resistance
- Moisture and mildew protection



# DESIGNATION OF FABRIC BELT





## STEEL CORD BELT

### Steel Cord Conveyor Belt

#### Features

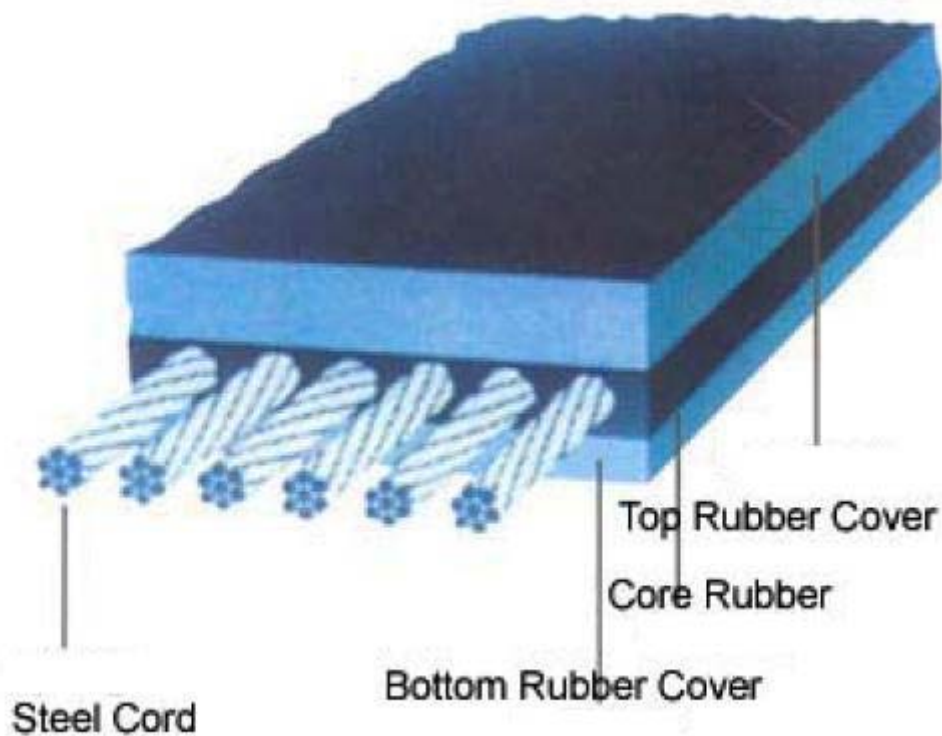
High tensile strength, shock resistant, long-life, good troughable, and flexing resistant, suitable for conveying in long-distant, high-speed and large quantity conveying.

#### Applications

Used in cement plants, coal-fired power plants, ports, and chemical industry.

#### Types

Conventional, fire-resistant, cold-resistant, abrasion-resistant, heat-resistant, acid & alkali-resistant and oil-resistant.





# STEEL CORD BELT

## ST Series Steel Cord Conveyor Belt Technical Data

ST630	ST800	ST1000	ST1250	ST1600	ST2000	ST2500	ST3150	
longitudinal tensile strength (N/mm)	630	800	1000	1250	1600	2000	2500	3150
the max. diameter of steel cord(mm)	3.0	3.5	4.0	4.5	5.0	6.0	7.5	8.1
the diameter of steel cord (mm)	2.8	3.2	4.0	4.5	4.9	5.7	6.8	7.6
the distance between rolls(mm)	10	10	12	12	12	12	15	15
the thickness of top cover(mm)	5	5	6	6	6	8	8	8
the thickness of bottom cover(mm)	5	5	6	6	6	6	6	8
the reference weight of the belt (kg/m) <sup>2</sup>	18	19.5	21.5	22.2	26.1	33.1	35.2	41.1

## GX Series Steel Cord Conveyor Belt Technical Data

GX630	GX800				GX1000		GX1250	GX1600	GX2000	GX2500		GX3000
6+7+6	6+7+6	6+7+6	6+7+6	7+9+7	7+9+7	8+11+8		8+12+8				
longitudinal tensile strength(N/mm)				630	800	1000		1250	1600	2000	2500	3000
the max. diameter of steel cord(mm)				4.5	4.5	4.5		4.5	6.0	6.0	7.2	8.3
the distance between rolls(mm)				20	17	13.5		11	20	16	17	18
the thickness of belt(mm)				19	19	19		19	23	23	27	28
the reference weight of the belt(Kg/m) <sup>2</sup>				23.6	21.3	25.		25.7	32.2	33.7	40.2	41.9

## Steel cord belt standard and major data

Type	Standard and main technical data
Conventional	GB9770
Fire-retardant	HG2539 II type MT147
Conventional flame retardant	HG2539 I type
Heat-resistant	HG2297
Abrasion-resistant	shore abrasion <sup>3</sup> 90mm
Heat abrasion-resistant	resistant 125C, shore abrasion <sup>0</sup> 150mm <sup>3</sup>
Acid/alkali/oil /resistant	HG4-846
Cold-resistant	fragility temperature -40C <sup>0</sup>

## Min-diameter recommendation of the conveyor roller ST series

Belt specification	ST630	ST800	ST1000	ST1250	ST1600	ST2000	ST2500	ST3150
Minimum Pulley Diameter(mm)	500	500	630	800	1000	1000	1250	1400





## FLEXOWELL BELT

### Corrugated Sidewall Conveyor Belt

#### Features

Corrugated sidewall conveyor belt is one of the most effective ways of elevating materials in a confined space, the economy is achieved by: single belt operation, wide range material can be handled, less space requirement, no transfer point, low maintenance and big capacity. Corrugated sidewall belt can be designed into a set of complete transportation system accord with application.

#### Applications

Used in cement plants, coal-fired power plants, ports, and chemical industry.

#### Cross-stabilized base belt Base Belt Structure

Four parts: top cover rubber; bottom cover rubber; reinforced core; cross-rigid. Thickness of top cover rubber: 3-6mm; Thickness of bottom cover rubber: 1.5-4.5mm.

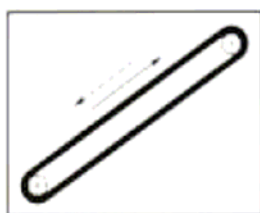




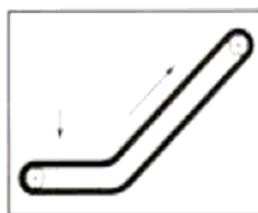
## FLEXOWELL BELT



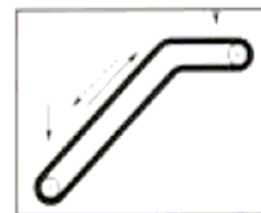
horizontal



Straight incline



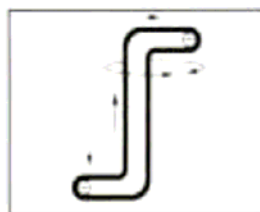
L shape



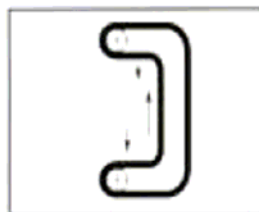
straight incline with horizontal discharge



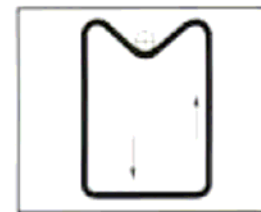
S shape



S shape vertical



inner circuit S shape



inner circuit U shape

### Belt core

Cotton, Nylon, EP or Steel Cord.

The width and specification is the same as the general belts.

**Corrugated sidewall** We manufacture the corrugated sidewall with tearing-resistant cotton to re-inforce the belt tearing strength for longer lifespan.

### S type corrugated sidewall has three kinds

light type (N); middle type (S); heavy type (ES).

Type	H (mm)	Bw (mm)	Bf (mm)	weight (kg/m <sup>2</sup> )
Light type (N)	60	34	40	1.24
	80	40	50	1.5
	100	42	50	2.0
Middle type (S)	120	42	50	2.65
	160	63	75	4.42
	200	63	75	5.82
	220	63	75	6.37
240	63	75	8.50	
Heavy type (ES)	300	89	105	12.4

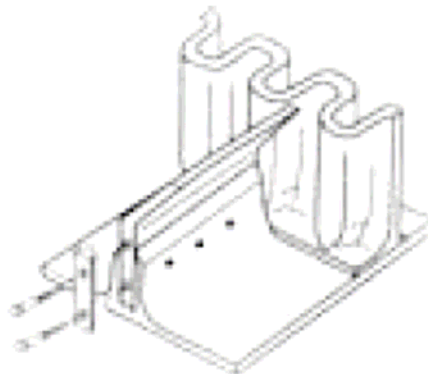
	400	89	105	15.0
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## FLEXOWELL BELT

**Cleat types** T, TS, C, TC and TCS Cleat types: T, TS, C, TC and TCS The cleat is made of enforced fabric, solid, anti-shock to avoiding distortion “TS and TCS” cleat are normally used for abrasion condition. “T and TS” cleat are normally used up to 40o inclination; “C,TC and TCS” are normally used from 40 o to 90 o.

Sidewall, cleat and base belt are joined through double hot vulcanization method. Cleat and sidewall are joined through bolt to prevent leakage of material.





# FLEXOWELL BELT

Base belt width (B)	Sidewall height (H)	Cleat height (H1)	Sidewallwidth (Bf)	Effective belt width (Br)	Free edge (R)
300	40	35	25	180	35
	60	55	50	120	40
	80	75			
400	60	55	50	180	60
	80	75			
	100	90			
500	80	75	50	250	75
	100	90			
	120	110			
650	100	90	50	350	100
	120	110			
	160	140	75	300	
800	120	110	50	460	120
	160	140	75	410	
	200	180			
1000	160	140	75	550	150
	200	180			
	240	220			
1200	160	140	75	690	180
	200	180			
	240	220			
	300	260	105	630	
1400	200	180	75	830	210
	240	220	75	970	
	300	260			
	400	360			
1600	200	180	75	910	240
	240	220			
	300	260	105	910	
	400	360			
1800	240	220	75	1110	270
	300	260	105	1050	
	400	360			
	500	460			

