

Heat Resistant Conveyor Belt

- The heat resistant conveyor belt is designed with high temperature resistant compound to convey heat materials. Its excellent heat resistant function makes the belt still remain good rubber properties and retardant aging under heat transportation and severe condition hence the product service life is increased.

Applications

Use when handling materials temperature exceeds 70 °C (160 °F).

- Iron and steel plant
- Metallurgy plant
- Cement plant
- Casting plant
- Fertilizer plant
- High temperature environment



Specification

Rubber grade	Property	Material temperature	Instant temperature	Remarks
HR412	Ordinary	≤ 120 °c (250 °F)	140 °c (290 °F)	If using SW or Kevlar fabric as the carcass instead of regular fabric, it can increase the adhesion strength of the carcass and reduce the possibility of fabric plies delamination due to high temperature; Kevlar fabric can prevent from carcass being penetrated efficiently due to instant excessive high temperature(>300 °C / 580 °F).
HR423	Good abrasive	≤ 200 °c (400 °F)	250 °c (490 °F)	
HR425	Good abrasive & Impact	≤ 200 °c (400 °F)	250 °c (490 °F)	
HR429	Super Temperature	≤ 300 °c (580 °F)	450 °c (850 °F)	

Remarks : Bearing temperature of belts is decided by materiality and size of stuff which will be carried.

Oil Resistant Conveyor Belt

Applications

- For all transportation process or materials containing oil including machine oil, heavy oil, mineral oil, or animal and vegetable oil, such as the grain, the mineral, the environmental protection recovery plant, the extract of petroleum, the production line of oily parts or the place where needs to prevent from the rubber deterioration by the oil.

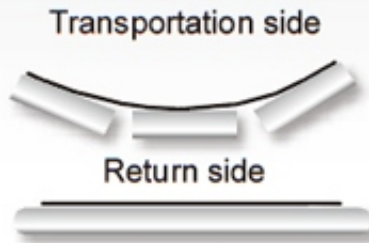
Selection of oil resistant belt

- Type of oil
- Volume and ingredients of oil.
- Temperature

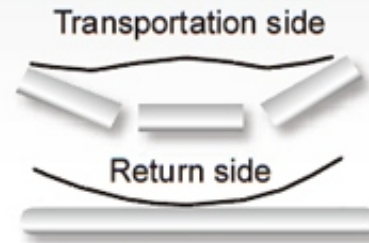
Sufficient information provided can help to choose right belt grade hence to increase performance and service life.



Oil test comparion



Good oil resistant conveyor belt



Normal non oil resistant conveyor belt

Type of rubber	Normal rubber	Moderate oil resistant	Middle oil resistant	Full oil resistant	Complex oil resistant
KING Type	Normal	OR315	OR350	OR300	OHR/FOER
Volume Change(%)	24Hr	+25%	+24%	-5%	-5%
	96Hr	+70%	+43%	-8%	-8%
	168Hr	+90%	+60%	-8%	-9%
Condition	Test oil: No.3 Test temperature:70°C				

Specification

Rubber	Working temperature	Types of oil resistant
OR315	-25°C ~ 60°C	wood oil, frozen food oil, and coal oil, etc.
OR350	-25°C ~ 60°C	grain oil, animal oil and vegetable oil, etc.
OR300	-25°C ~ 60°C	mineral oil, heavy oil, anti rust oil, engine oil, animal oil, recycling process oil, etc.
OHR	-25°C ~ 100°C	Asphalt and coal, etc.
FOER	-25°C ~ 60°C	Asphalt and coal, etc.

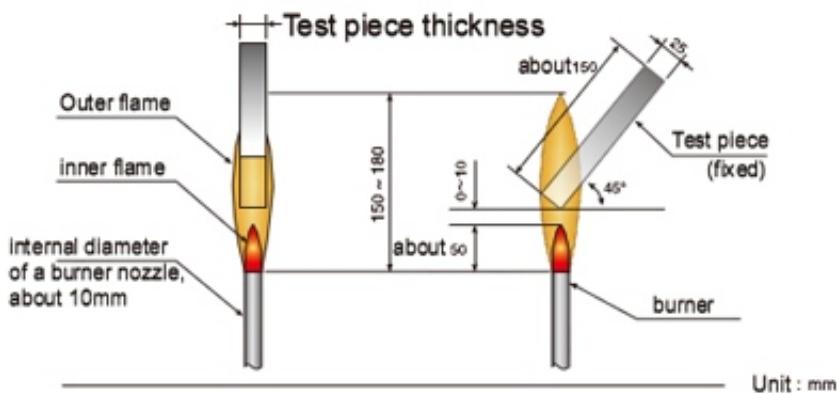


Flame Resistant Conveyor Belt

- KING brand flame resistant conveyor belt conforms to the standard of above ground and provides better abrasion and longer service life.

Applications

For handling flammable materials or the environment with potential risk to cause conveyor belt burning, such as coal mine and power plant, etc.



(1) Temperature $1000^{\circ}\text{C} \pm 100^{\circ}\text{C}$



(2) Take the burner off, measure the flame duration time of the test specimen.



(3) The remaining flame of test piece must self-extinguish.

Specification

FR500	Normal flame resistant	Remark: If using SW or Kevlar fabric as the carcass fabric to replace EP or steel cord products, it can increase the adhesion strength, provide better impact resistance and extend belt service life, also can prevent the danger caused by friction and the sparks due to steel cord exposure.
FR510	Flame resistant and high abrasion	
FR550	MSHA No. 18-CBA070010	
FOER	Flame, oil and anti-static resistant	



Abrasion Resistant Conveyor Belt

- KING brand conveyor belt provides different abrasion of compound to meet different efficiency.

Applications

- Steel plant
- Coal mine
- Wharf
- Mining field
- Sinter
- Quarry
- Recycling treatment
- Sharp materials

Abrasion test

1. Shape of the specimen : Diameter 16mm and thickness 6mm above.
2. Installation : Diameter of the roller 150±0.2mm, turning speed 40±1rpm, clockwise rotation.
3. Loading : 10±0.2N(1.02±0.02kgf)
4. Abrasion test:the front side need to protrude 2mm, abrasion test travel 40m.
5. Calculate volume of the abrasion

$$\Delta V = \frac{\Delta G \times W}{Q \times S}$$

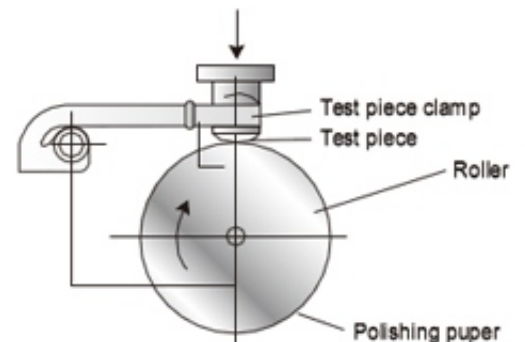
ΔV : Abrasion volume (mm³)

ΔG : Abrasion loss of test piece (mg)

W : 200±20 (mg)(Abrasion volume per 40m travel)

Q : Density of the specimen (mg/mm³)

S : The abrasion force of the polishing cloth when test travel 40m (mg)



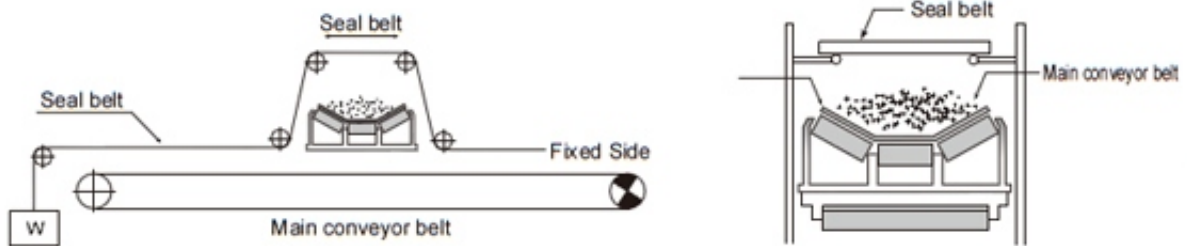
Rubber grades

Types of rubber	Abrasion DIN (mm ³)	Tensile strength (kg/cm ²)	Hardness
A80	80 ↓	180	63±3
A50	50 ↓	160	60±3



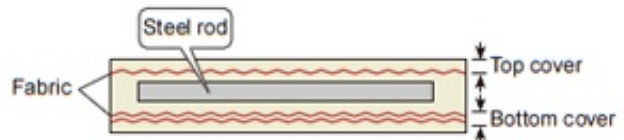
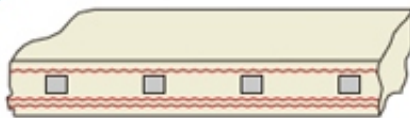
Seal Belt

- A special reinforced layer is used to increase cross rigid, make the belt surface flat and tough withstand man weight 60-100 kg and allow the people walking on the belt for working or maintenance, and avoid material dispersing around, also it can provide dust-proof, wind-proof, rain-proof, and sunlight-proof.
- It's suitable to use in the movable loading station, such as the loading equipment to the wharf.

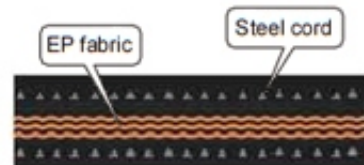
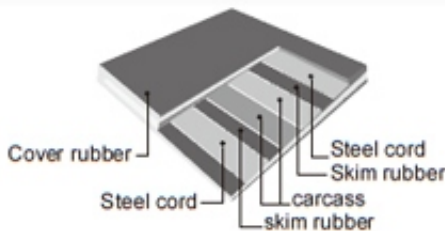


Construction

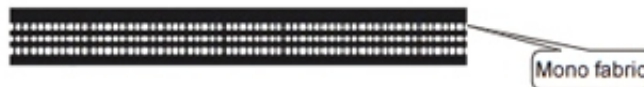
■ Steel rod



■ Steel cord



■ Mono



Specification

Construction	Width (mm)	Fabric strength (kg/cm/ply)	Rubber type	Withstand outer loading
Steel rod	1600~2200	100	Fire resistant Weather resistant	80~100kg
Steel cord	800~2000	135 160		60~80kg
Mono	600~1000	200		NO



Pipe Conveyor Belt

- Pipe conveyor belt is made with special carcass, combined with high properties of compound, suitable for handling powder and granular materials which pollute the environment easily.

Characteristics

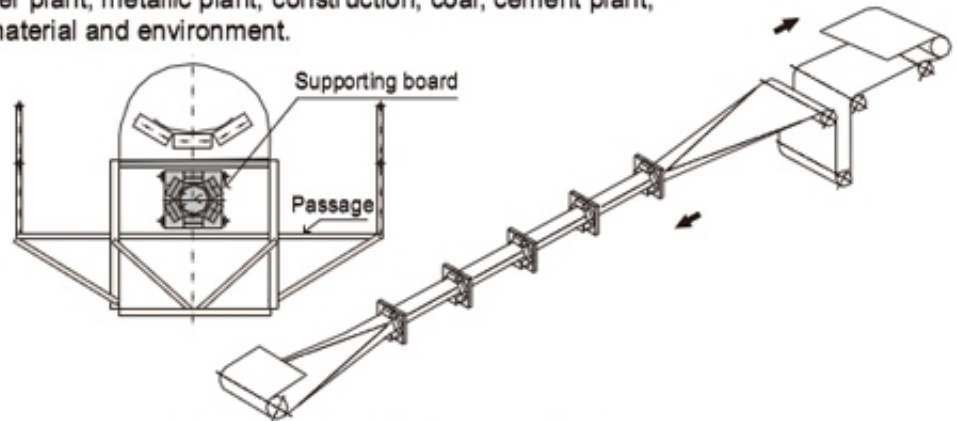
1. Using sealed conveying method to protect the handling materials and environment.
2. Prevent the carrying materials from falling off or spilling out that caused environmental pollution.
3. Prevent other materials or rain from entering, assure purity of products.
4. Enable Conveying in curved line without geographic limit.
5. Provide larger conveying angle (Max. 30°) than traditional belt, shorten conveying distance.



Applications

- Suitable for using in wharf, power plant, metallic plant, construction, coal, cement plant, paper mill, or high pollution of material and environment.

Transported materials



- The rubber compounds can be abrasion resistant, oil resistant, heat resistant, flame resistant, anti-static resistant, chemical resistant or cold resistant.

Specifications and conveying efficiency

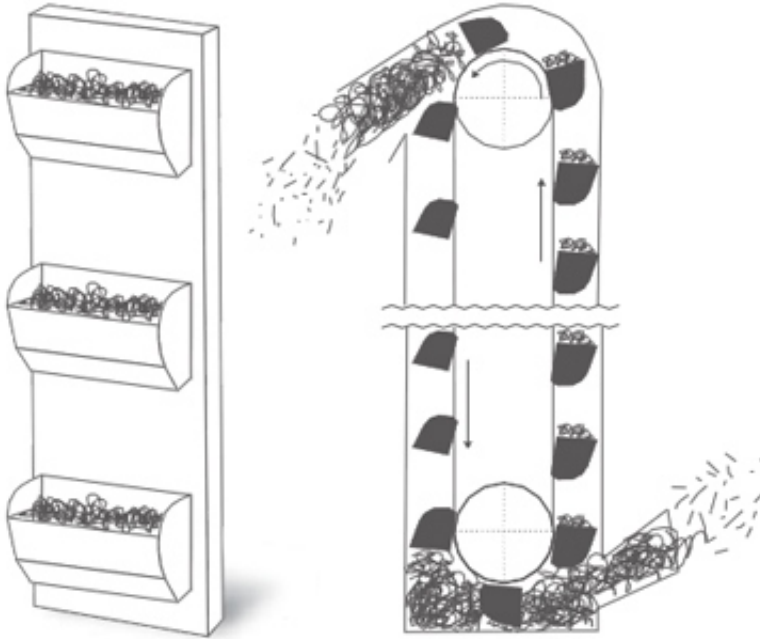
Only for reference

Inner pipe diameter (mm)	Loading area (m ²)	Conveying speed (m/min)	Conveying Volume (m ³ /Hr)
150	0.013	120	95
200	0.024	130	184
250	0.037	140	309
300	0.053	150	477
350	0.072	175	758
400	0.094	200	1131
500	0.147	225	1988
600	0.212	250	2875
700	0.289	275	3931
800	0.377	300	5157



Bucket Elevator Belt

- The bucket elevator is designed for the vertical transportation and is mainly used in handling powder or granular materials. It can shorten the distance of transportation by using the buckets fixed on the belt for vertical transportation.



Specification

Fabric	Strength (kg / cm / ply)	Ply	Specification of the cover rubber	Rubber grades
Polyester / Nylon	100	2P	0,8mm x 0,8mm 1.5mm x 1.5mm 2.0mm x 2.0mm 1/32" x 1/32" 1/16" x 1/16" FS x FS BARE x BARE color of the bare side Brown  Black 	Abrasion resistant
	135	3P		
	160	4P		
Polyester / Mono To increase cross rigidity	135	5P		Oil resistant
	160			Heat resistant
Straight Warp Reduce the thickness and weight of the belt and save power under same belt strength.	315	1P	Flame resistant	
	400			
	600	2P		
Kevlar The elongation is similar to that of the steel cord belt.	800	1P		Anti-static resistant
	1000			Chemical resistant
	1250			
	1400			
	1600			



Rip Stop Conveyor Belt

- Rip stop conveyor belt is mainly used to prevent the belt from penetrating or cut due to outside force factor during the conveying that cause risk of belt damage or broken. KING brand Rip stop conveyor belt provides a special rip stop breaker inserted in top cover, this rip stop breaker has different material and specification that meet various conveying design requirement

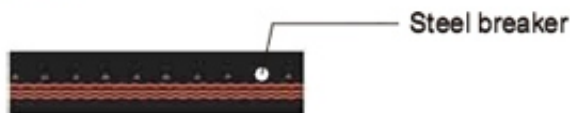


Features

- Good troughing index
- Good flexibility without increasing pulley diameter

Rip stop material

- Steel cord



- Kevlar fabric



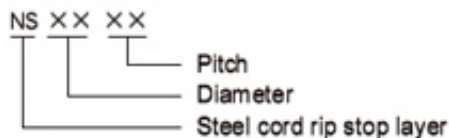
Specification

Rip stop material			Thickness mm		Width mm	Fabric strength kgf/cm N/mm	Cover rubber grade
Code	Material	Structure	Top	Bottom			
NA	Steel cord	Diameter: 1.5mm Pitch: 2~10mm (Can design according to customer's demand)	≥ 6.0mm	≥ 2.0mm	800 }	300 }	Abrasion resistant Impact resistant General resistant Fire resistant Cold resistant
KA	Kevlar	Denier: 4500~18000 Density: (8~10) ±1 end/cm	≥ 4.0mm	≥ 1.5mm	2200	2200	Abrasion resistant Impact resistant Oil resistant Heat resistant Fire resistant Cold resistant

Specification expression

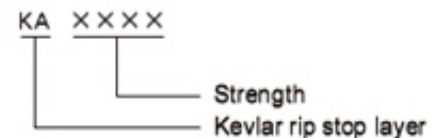
NS Series

R190 EP200+NS1502 1000 × (3+1)P × 8 × 2



KA Series

R190 EP200+KA630 1000 × (3+1)P × 8 × 2



Cold Resistant Conveyor Belt

- KING brand Cold resistant conveyor belt is designed for conveying in refrigerator storage or outdoor cold area, the belt can keep normal operation under the environment of -40°C.

Cover rubber type

- Impact resistant type
- Abrasion resistant type
- Flame resistant type

Chemical Resistant Conveyor Belt

- KING brand Acid & Alkali resistant belt is designed to convey corrosive or acid & alkali material in order to prevent the ingredient of rubber from being extracted and pollute the conveying material, also can reduce the corrosion of cover rubber so as to extend the belt life.
- Suitable for chemical plant, paper mill, fertilizer plant, mine, port and other environment with acid & alkali material.



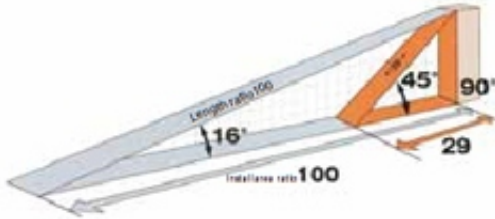
Main rubber property comparison

Rubber material	NBR	CR	EPDM	NR	SBR	ACM	VMQ	FVMQ	FKM
Tear resistant	G	F-G	F	E	E	B-F	B-F	B	F-G
Abrasion resistant	E	E	G	E	G	F	B-F	B	G
Fire resistant	B	G-E	B	P	P	B	F-E	E	E
Weather resistant	B	E	E	B	B	E	E	E	E
Water resistant	E	G	E	E	E	B	G-E	E	E
Ozone resistant	B-F	E	E	B-F	B-F	E	E	E	E
Oxide resistant	G	E	E	G	G	G	E	E	E
Compression set	G-E	G-E	G-E	F	F	G	F-E	G	G-E
Acid resistant(diluted)	G	E	E	G	G	B-F	G	E	E
Acid resistant(condensed)	G	E	E	G	G	B-F	F	G	E
Alkali resistant(diluted)	G	E	E	G	G	B-F	E	E	E
Alkali resistant(condensed)	G	E	E	G	G	B-F	E	G	P
Synthetic lubricant	G-E	B	P	P	P	B	P	E	E
Low polar lubricating oil	E	E	P	P	P	E	G	E	E
High polar lubricating oil	E	G	P	P	P	E	F	E	E
Animal oil, vegetable oil	G	G	G-E	P	P	G	E	E	E
Anti-electrical conductivity	B-F	E	E	B-F	B-F	F	G-E	E	G

E : Excellent G : Good F : Ordinary B : Poor P : Bad

Side Wall Conveyor Belt

- Side wall conveyor belt is technically cooperated with Yoshino Rubber in Japan, it provides good cross rigidity and special side wall design that make large angle conveying have excellent transportation performance and longer service life, 45°~90°angle conveyor belt length and save conveying area.



Conveyor belt specification, type

Side wall type

Type	Application	Drawing
Standard type	T type < 45°	T TYPE K TYPE
	K type ≥ 45°	
Special type	TC type ≥ 70 Jarge conveying volume	TC TYPE I TYPE
	KC type	

Conveyor system type



Specification

EP315	A80	600	× (2+2)P	× 4.0	× 2.5
Tensil Strength (kgf/cm)	Rubber Grade	Width (mm)	Carcass plys + Reinforce plys	Top Cover (mm)	Bottom Cover (mm)

Conveyor belt specification

Fabric	Carcass strength(kgf/cm · kN/m) (carcass + reinforcement layer)	160 (2+2)P	250 (2+2)P	315 (2+2)P	400 (2+2)P	500 (3+2)P	630 (3+2)P	800 (3+2)P	1000 (4+2)P
Rubber specification	Cover rubber grade	abrasion resistant, super abrasion resistant, general heat resistant, fire resistant							
	Cover rubber thickness mm (Top cover x Bottom cover)	4.0×2.5	4.0×2.5	4.0×2.5	4.0×2.5	4.5×4.0	4.5×4.0	4.5×4.0	4.5×4.0
Belt width	300 mm	●	●	●					
	350 mm	●	●	●					
	400 mm	●	●	●					
	450 mm	●	●	●					
	500 mm	●	●	●	●				
	600 mm	●	●	●	●	●			
	650 mm	●	●	●	●	●			
	700 mm	●	●	●	●	●			
	750 mm	●	●	●	●	●	●		
	800 mm		●	●	●	●	●	●	
	900 mm		●	●	●	●	●	●	●
	1000 mm			●	●	●	●	●	●
	1050 mm			●	●	●	●	●	●
	1200 mm				●	●	●	●	●
	1350 mm					●	●	●	●
1400 mm						●	●	●	
1500 mm							●	●	
1600 mm							●	●	

Non Stick Belt

Application

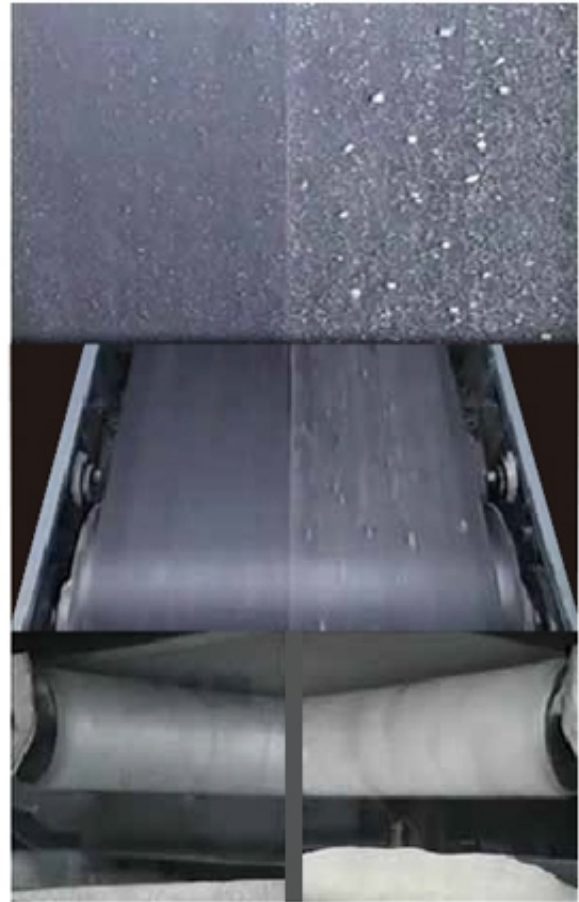
- Clay
- Iron ores
- Lime
- Fertilizer

Characteristics

- Avoiding sticking belts or down capacity of belts.
- Saving clean cost
- Prevent belt damaged
- Working Smoothly from return roller

Cover Rubber Type

- Abrasion Resistant
- Oil Resistant
- Flame Resistant
- Cold Resistant
- Chemical Resistant

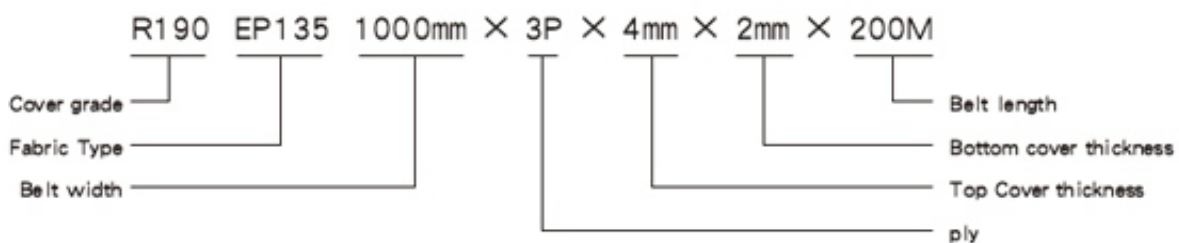


EP/NN Conveyor Belt

Specification

Fabric Type	Tensile Strength	Ply	Total Thickness	Width
EP & NN	100-400 kg/cm (N/mm)	2P-8P Best construction developing on conveying strength can be designed	0.8mm ~ 40mm ($\frac{1}{32}$ " ~ $1\frac{1}{2}$ ")	300mm ~ 2200mm (12" ~ 86") Full width fabric production without fabric joint.

■ Specification expression



Belt weight (only for reference)

Weight (kg/m)

Width (mm)	Thickness of the belt (mm)														
	5	6	7	9	10	11	12	13	14	15	16	17	18	19	20
300	1.8	2.2	2.5	3.2	3.7	4.0	4.4	4.8	5.1	5.6	6.0	6.4	6.8	7.1	7.5
350	2.1	2.5	2.9	3.8	4.3	4.7	5.1	5.6	6.0	6.6	7.0	7.4	7.9	8.3	8.8
400	2.4	2.9	3.4	4.3	4.9	5.4	5.9	6.3	6.8	7.5	8.0	8.5	9.0	9.5	10.0
450	2.7	3.2	3.8	4.9	5.5	6.0	6.6	7.1	7.7	8.4	9.0	9.6	10.1	10.7	11.3
500	3.0	3.6	4.2	5.4	6.1	6.7	7.3	7.9	8.5	9.4	10.0	10.6	11.3	11.9	12.5
550	3.3	4.0	4.6	5.9	6.7	7.4	8.1	8.7	9.4	10.3	11.0	11.7	12.4	13.1	13.8
600	3.6	4.3	5.0	6.5	7.3	8.1	8.8	9.5	10.2	11.3	12.0	12.8	13.5	14.3	15.0
650	3.9	4.7	5.5	7.0	7.9	8.7	9.5	10.3	11.1	12.2	13.0	13.8	14.6	15.4	16.3
700	4.2	5.0	5.9	7.6	8.5	9.4	10.2	11.1	12.0	13.1	14.0	14.9	15.8	16.6	17.5
750	4.5	5.4	6.3	8.1	9.2	10.1	11.0	11.9	12.8	14.1	15.0	15.9	16.9	17.8	18.8
800	4.8	5.8	6.7	8.6	9.8	10.7	11.7	12.7	13.7	15.0	16.0	17.0	18.0	19.0	20.0
900	5.4	6.5	7.6	9.7	11.0	12.1	13.2	14.3	15.4	16.9	18.0	19.1	20.3	21.4	22.5
1000	6.0	7.2	8.4	10.8	12.2	13.4	14.6	15.9	17.1	18.8	20.0	21.3	22.5	23.8	25.0
1050	6.3	7.6	8.8	11.3	12.8	14.1	15.4	16.7	17.9	19.7	21.0	22.3	23.6	24.9	26.3
1200	7.2	8.6	10.1	13.0	14.6	16.1	17.6	19.0	20.5	22.5	24.0	25.5	27.0	28.5	30.0
1400	8.4	10.1	11.8	15.1	17.1	18.8	20.5	22.2	23.9	26.3	28.0	29.8	31.5	33.3	35.0
1500	9.0	10.8	12.6	16.2	18.3	20.1	22.0	23.8	25.6	28.1	30.0	31.9	33.8	35.6	37.5
1600	9.6	11.5	13.4	17.3	19.5	21.5	23.4	25.4	27.3	30.0	32.0	34.0	36.0	38.0	40.0
1800	10.8	13.0	15.1	19.4	22.0	24.2	26.4	28.5	30.7	33.8	36.0	38.3	40.5	42.8	45.0
2000	12.0	14.4	16.8	21.6	24.4	26.8	29.3	31.7	34.2	37.5	40.0	42.5	45.0	47.5	50.0
2100	12.6	15.1	17.6	22.7	25.6	28.2	30.7	33.3	35.9	39.4	42.0	44.6	47.3	49.9	52.5
2200	13.2	15.8	18.5	23.8	26.8	29.5	32.2	34.9	37.6	41.3	44.0	46.8	49.5	52.3	55.0

Minimum Pulley Diameter

Diameter : mm

Strength kg/cm	EP fabric					NN fabric				
	2Ply	3Ply	4Ply	5Ply	6Ply	2Ply	3Ply	4Ply	5Ply	6Ply
160	200	400				200	300			
250	300	400				200	300			
315	300	400	450			200	300	350		
400	350	400	500	550		250	300	400	450	
500	350	450	550	600		250	350	400	450	
630	400	500	600	700		300	400	450	500	
800		600	700	750	850		450	500	550	600
1000		700	800	850	950		500	550	600	650
1250		800	900	1000	1050		600	650	700	750
1500			1000	1150	1300			750	800	850
1800				1300	1400				900	1000
2000				1400	1500				950	1050
2500					1650					1150

Using Kevlar or SW fabric can reduce the diameter of the diameter of the pulley to save the cost.

Belt Diameter Conversion Table

Diameter unit : mm

Thickness (mm) \ Length(m)	100	200	250	300	350	400	450	500
3.0	650	897	997	1,089	1,173	1,252	1,326	1,396
4.0	741	1,029	1,146	1,252	1,350	1,441	1,527	1,608
4.5	783	1,089	1,213	1,326	1,430	1,527	1,618	1,704
5.0	823	1,146	1,277	1,396	1,506	1,608	1,704	1,795
5.5	860	1,200	1,338	1,463	1,578	1,686	1,786	1,882
6.0	897	1,252	1,396	1,527	1,647	1,759	1,865	1,965
6.5	931	1,302	1,452	1,588	1,714	1,830	1,940	2,044
7.0	965	1,350	1,506	1,647	1,777	1,899	2,013	2,120
7.5	997	1,396	1,558	1,704	1,839	1,965	2,083	2,194
8.0	1,029	1,441	1,608	1,759	1,899	2,028	2,150	2,266
8.5	1,059	1,485	1,657	1,813	1,956	2,090	2,216	2,335
9.0	1,089	1,527	1,704	1,865	2,013	2,150	2,280	2,402
9.5	1,118	1,568	1,750	1,915	2,067	2,209	2,342	2,467
10.0	1,146	1,608	1,795	1,965	2,120	2,266	2,402	2,531
10.5	1,173	1,647	1,839	2,013	2,172	2,321	2,461	2,593
11.0	1,200	1,686	1,882	2,060	2,223	2,375	2,518	2,654
11.5	1,226	1,723	1,924	2,105	2,273	2,428	2,575	2,713
12.0	1,252	1,759	1,965	2,150	2,321	2,480	2,630	2,771
12.5	1,277	1,795	2,005	2,194	2,369	2,531	2,684	2,828
13.0	1,302	1,830	2,044	2,237	2,415	2,581	2,737	2,884
13.5	1,326	1,865	2,083	2,280	2,461	2,630	2,788	2,938
14.0	1,350	1,899	2,120	2,321	2,506	2,678	2,839	2,992
14.5	1,373	1,932	2,158	2,362	2,550	2,725	2,889	3,045
15.0	1,396	1,965	2,194	2,402	2,593	2,771	2,938	3,097

International Standards

Standard	Rubber grade	Strength kg f/cm ²	Breaking elongation%	Abrasion mm ³
CNS	L	150 ↑	350 ↑	200 ↓
Taiwan	S	180 ↑	450 ↑	200 ↓
	H	240 ↓	450 ↑	120 ↓
Standard	Rubber grade	Strength Mpa	Breaking elongation%	Abrasion mm ³
JIS Japan	P	8 ↓	300 ↑	400 ↓
	G	14 ↓	400 ↑	250 ↓
	S	18 ↓	450 ↑	200 ↓
	A	14 ↓	400 ↑	150 ↓
	L	15 ↓	350 ↑	200 ↓
	D	18 ↓	400 ↑	100 ↓
	H	24 ↓	450 ↑	120 ↓
Standard	Rubber grade	Strength Mpa	Breaking elongation%	Abrasion mm ³
GB	D	18 ↓	400 ↑	90 ↓
China	H	25 ↓	450 ↑	120 ↓
	L	20 ↓	400 ↑	150 ↓
	P	14 ↓	350 ↑	200 ↓
Standard	Rubber grade	Strength kg f/cm ²	Breaking elongation%	Abrasion mm ³
DIN Germany	W	18 ↓	400 ↑	90 ↓
	X	25 ↓	450 ↑	120 ↓
	Y	20 ↓	400 ↑	150 ↓
	Z	15 ↓	350 ↑	250 ↓
Standard	Rubber grade	Strength kg f/cm ²	Breaking elongation%	Abrasion mm ³
BS UK	M24	244.8 ↓	450 ↑	—
	N17	173.4 ↓	400 ↑	—
Standard	Rubber grade	Strength kg f/cm ²	Breaking elongation%	Abrasion mm ³
RMA USA	GRADE1	17 ↓	400 ↑	200 ↓
	GRADE2	14 ↓	400 ↑	250 ↓
Standard	Rubber grade	Strength kg f/cm ²	Breaking elongation%	Abrasion mm ³
AS Australia	AS-A	173.4 ↓	400 ↑	70 ↓
	AS-E	142.8 ↓	300 ↑	—
	AS-F	142.8 ↓	300 ↑	—
	AS-M	244.8 ↓	450 ↑	125 ↓
	AS-N	173.4 ↓	450 ↑	200 ↓
	AS-S	142.8 ↓	300 ↑	250 ↓

Note : Diameter of winding core 200mm