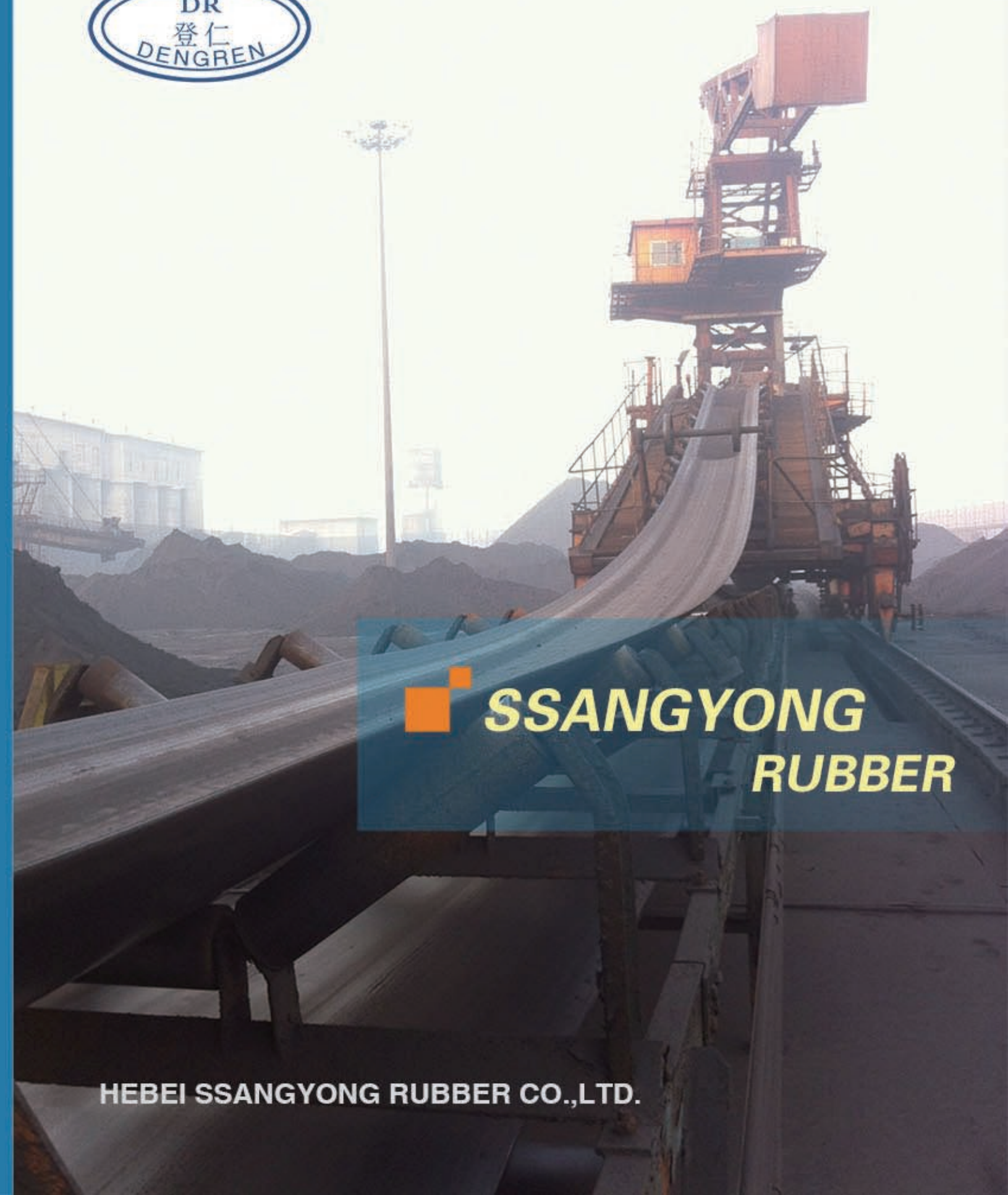




 **SSANGYONG**
RUBBER

HEBEI SSANGYONG RUBBER CO.,LTD.

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HEBEI SSANGYONG RUBBER CO.,LTD.



SSANGYONG RUBBER



Excellence Technology Innovation Credibility



HEBEI SSANGYONG RUBBER CO.,LTD.

Company introduction

Hebei Ssangyong Rubber Co.,Ltd. was established in 1993 and previously named as Xinxing Rubber Canvas Factory,expanded to Hebei Ssangyong Rubber Co.,Ltd. In 2003.

Our company is a professional manufacturer that specialized in research, development and production of conveyor belt for over 20 years.

Located in Lixian DuiKanZhuang Rubber Industrial District of Hebei province,our company has convenient communications and vantage point.

Hebei Ssangyong Rubber Co.,Ltd. covers an area of 50,000 square meters,building area of 30,000 square meters.At present, our company has more than 300 employees including ten engineers,thirty technicians and fifteen salesmen.

Our company produces" Dengren" brand PVC and PVG whole core flame retardant conveyor belt,cotton/nylon/polyester conveyor belt,chemical resistant conveyor belt,chevron/pockmark pattern conveyor belt,cold/heat resistant conveyor belt and the idler and roller that used in belt conveyor.

Our products have been tested by the National Rubber Belt Examination Center and all technical properties reached or exceeded the relative national standard.Besides,with our advanced testing equipments,Independent chemical analysis laboratory and physical laboratory,we can guarantee the raw materials,process product and end products are in good and controlled condition,to ensure that no unqualified raw material comes into factory and no unqualified product goes outside of the factory.

At the same time,our company has started to develop international market and our products can also reach to many international standards,such as DIN,AS,BS,JIS,SANS,RMA,etc.

Depending on the strict management system and consummate after-sales service system,we provide our customers with high quality and low price conveyor belts,also a warm service.

General manager Mr.Qiao Dengren and all staffs wish to cooperate with all the customers from home and abroad sincerely,establish business relationship and built a bridge of friendship to create" Ssangyong" brilliancy!





SSANGYONG RUBBER



Company Honor



HEBEI SSANGYONG RUBBER CO.,LTD.

Advanced Production Equipments



Technology promotes company developments

perfect
test equipments

strict quality
management system

Main Products: General Specification:

EP conveyor belt

Nylon conveyor belt

Cotton conveyor belt

Steel cord conveyor belt

Sidewall conveyor belt

Endless conveyor belt

Heat resistant conveyor belt

Cold resistant conveyor belt

Oil resistant conveyor belt

Chemical resistant conveyor belt

Chevron pattern conveyor belt

PVC&PVG Fire resistant conveyor belt

Width: 200mm-2200mm

Piles: 2-10 ply

Thickness: 4mm-30mm

Standards:

GB/T 7984-2001, DIN22102,

RMA, SANS1173, JISK6322,

AS1332, BS3289.





Standards offered:

GB/T9770, DIN22131, EN ISO 15236, BS, JIS, SANS1366 and AS1333.

Main technical index:

Strength of the belt specifications	ST 630	ST 800	ST 1000	ST 1250	ST 1600	ST 2000	ST 2500	ST 3150	ST 3500	ST 4000	ST 4500	ST 5000	ST 5400	ST 6300
Longitudinal tensile strength	630	800	1000	1250	1600	2000	2500	3150	3500	4000	4500	5000	5400	6300
Maximal nominal diameter of the steel wire mm	3.0	3.5	4.0	4.5	5.0	6.0	7.2	8.1	8.6	8.9/9.1	9.7	10.9	11.3	12.3
Space between cord	10	10	12	12	12	12	15	15	15	15/17	16	17	17	18
Top cover thickness	5	5	6	6	6	8	8	8	8	8/8	8	8.5	9	10
Bottom cover thickness	5	5	6	6	6	8	8	8	8	8/8	8	8.5	9	10
Quality	18	19.5	21.5	22.2	26.1	33.1	35.3	41.1	45	45/45	51	59	62	65
Width specifications	Number of steel cords													
800	75	75	63	63	63	63	50	50						
1000	95	95	79	79	79	79	64	64	64	64/56	59	55	55	54
1200	113	113	94	94	94	94	76	76	77	77/68	71	66	66	63
1400	133	133	111	111	111	111	89	89	90	90/79	84	78	78	74
1600	151	151	126	126	126	126	101	101	104	104/91	96	90	90	85
1800		171	143	143	143	143	114	114	117	117/108	109	102	102	96
2000			159	159	159	159	128	128	130	130/114	121	113	113	107
2200							176	141	141	144	144/125	134	125	118
2400							193	155	155	157	157/137	146	137	129
2600							209	168	168	170	170/148	159	149	140
2800										184	184/160	171	161	151

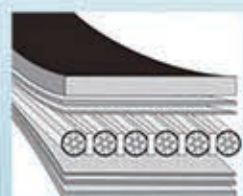
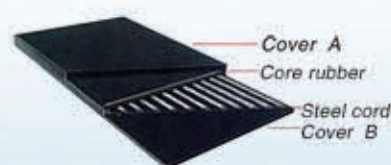


Steel Core Conveyor Belt

Cover Compounds: General, Fire-resistant, Cold-resistant, Abrasion-resistant, Heat-resistant and Chemical-resistant. Din X standard tear resistance steel cord conveyor belt is the best choice.

Features:

1. High tensile strength: Steel cord conveyor belt is suitable for large span, long distance transportation of materials.
2. Small elongation in use: It need only a very short take-up stroke distance.
3. Small diameter of drive pulley: Steel cord conveyor belt body has a layer of longitudinally arranged steel cords as its skeleton, and thus is resistant to flex fatigue. Therefore, drive pulley of smaller diameter can be used to make the equipment smaller.
4. High adhesion between rubber and steel cord: The steel cords are coated with zinc on their surface, and also the rubber used has the property of good adhesion with steel cords. Therefore, the rubber is tightly adhered to the steel cords and is resistant to shock and difficult to drop, so the rubber belts are long in life.





EP/Polyester Conveyor Belt

Features:

1. thin belt body, high strength
2. soft and has good flexibility, easier to form trough
3. good impact resistance, abrasion resistance, corrosion resistance

Applications:

EP conveyor belt can be widely used in coal, mining, port, steel works, cement plant, metallurgy, quarry, foundry, electric power, chemical industry to transport bulk materials.

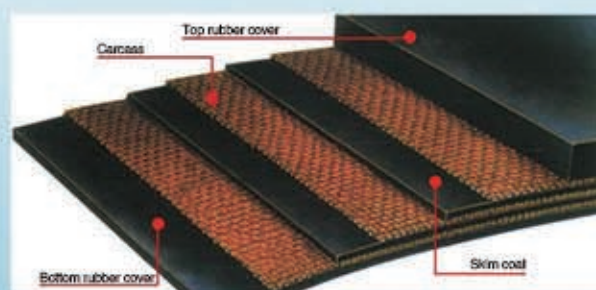
The cover rubber's physical properties:

Grade of covering rubber	Tensile strength, Mpa, $\geq$	Elongation at break, % $\geq$	Abrasion loss, mm ³ $\leq$	Change rate of tensile strength and elongation at break after 70°Cx168h aging
Laceration resistant type(H)	24	450	120	-25 ~ +25
Abrasion resistant type(D)	18	400	100	-25 ~ +25
Ordinary type(L)	15	350	200	-25 ~ +25

Adhesion strength of cover and ply:

Item	Between the fabric layers	Between cover and belt carcass	
		Cover thickness 0.8-1.5mm	Cover thickness > 1.5mm
Average value of all samples. N/mm $\geq$	4.5	3.2	3.5
Lowest peak value of all samples. N/mm $\geq$	3.9	2.4	2.9

Remark: highest peak value of all samples shall not exceed 20N/mm



Nylon Conveyor Belt

It has the characteristics of high strength, good elasticity, impact resistance, thin belt body, less weight, strong interlayer adhesion strength, flex stiffness and long service life.

It is suitable for conveying bulk materials and packaged items under medium and long distance, high loads and high speed conditions.

Types: laceration resistant type, abrasion resistant type, general type, chemical resistant type, flame resistant type.

General specifications of nylon conveyor belt:

Carcass material	Fabric type	Fabric thickness (mm/ply)	Number of fabric piles	Strength (N/mm)					Cover rubber thickness (mm)		Width (mm)	Length (m)
				2ply	3ply	4ply	5ply	6ply	upper	bottom		
Nylon (NN)	NN100	0.75	2-10	200	300	400	500	600	1.5-8.0	0-4.5	400-2200	≤400
	NN150	0.80		300	450	600	750	900				
	NN200	0.90		400	600	800	1000	1200				
	NN250	1.15		500	750	1000	1250	1500				
	NN300	1.25	2-6	-	900	1200	1500	1800			800-2200	
	NN400	1.45		-	-	1600	2000	2400				
	NN500	1.55		-	-	2000	2500	3000				





Corrugated Sidewall Conveyor Belt

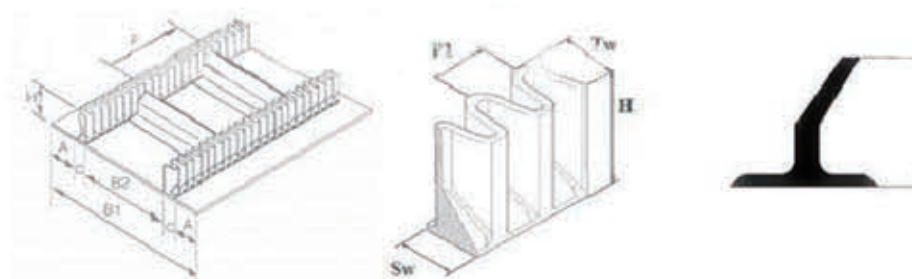
It has the following system advantages:

- No transfer point
- No spillage with steep angle conveying
- Maximum utilisation of space
- Minimum maintenance, long belt life
- Wide range of materials can be handled
- Low power requirement, quiet smooth running

Width of base belt	Sidewall height H	Cleat height H1	Wave bottom width B1	Effective width of base belt B2	Empty edge width B3	Cleat type
300	40	35	25	180	35	TC
	60	55	50	120	40	
	80	75				
400	60	55	50	180	60	TC
	80	75				
	100	90				
500	80	75	50	250	75	TC
	100	90				
	120	110				
650	100	90	50	350	100	TC
	120	110				
	160	140				
800	120	110	50	460	120	TC
	160	140				
	200	180				
1000	160	140	75	550	150	TC
	200	180				
	240	220				
1200	160	140	75	690	180	TC
	200	180				
	240	220				
	300	260	100	640		
1400	200	180	75	830	210	TC
	240	220				
	300	260				
	400	360	100	780		

Type Name	N					S				ES			
Sidewall													
Height	40	60	80	100	120	120	160	200	240	300	400	500	630
structure													
Type	TC					TC				TC			
Height	35	55	75	90	110	110	140	180	220	280			
structure													
Type	T					T				TS			
Height	35	55	75	90	110	110	140	180	220	280	360	460	580
structure													
Type	C					C				TCS			
Height		55	75	90	110	110		180	220	280	360	460	580

Sidewall Belting Data sheet





Oil Resistant Conveyor Belt

Basic construction:

- two or multi-ply EP carcass (warp polyester + weft polyamide)
- a special intermediate skimmed layer
- special oil and grease resistant types of rubber cover

Type 1 - oil and grease resistant

Type 2 - medium oil and grease resistant

Type 3 - completely oil and grease resistant

Technical datas:

Standards: HG/T3714-2003

Cover Type	Standard & Grade	Minimum Tensile Strength (Mpa)	Minimum Elongation At Break (%)	Maximum Abrasion Loss (MM ³)	Reference Material
High Oil Resistant	Oril-HIOR	15.0	350	40	Materials like oil treated fertilisers
Oil Resistant	IS-OR	12.5	250	70	Materials with crude petroleum, Tar, Oil sand, fertilisers etc.
	AS-Z	12.5	250	70	
	DIN-G	12.5	250	70	
Moderate Oil Resistant	Oril-MOR	12.5	250	80	Materials like vegetables oils and animal greases



Benifits:

- resistant to oil and grease, as well as certain other chemical impacts from the environment
- limited and minimised swelling
- high adhesion strength
- low cost endless splicing by hot and cold curing, or mechanical clamping
- low elongation at reference load
- improved weathering and rotting resistance

Chemical Resistant Conveyor Belt

Characteristics:

1. Superior chemicals and corrosion resistant properties
2. Superior elasticity as well as small elongation at rated load
3. Superior adhesion, flexibility as well as trough ability
4. Resistant to most chemicals including chlorinated compounds, acids & bases, coolant oils

The physical and oil resistant performance:

Item			Tensile Strength /Mpa ≥	Elongation at break /% ≥	Abrasion /mm ³ ≤	Hardness /shore A	Ozone deterioration
Cover	Physical property	Before aging	14	400	250	55-70	No cracks
		After aging	12	340	-	60-75	-
	Acid and alkali resistance	Class	Soak liquid	Density	Soak conditions	Change rate before and after soak	
					°C x h	Swelling rate	Change rate of tensile strength
		A1	HCL	18%	50°C x 96h	≈+10%	≈-10%
		A2	H2SO4	50%	50°C x 96h	≈+10%	≈-10%
		A3	NaOH	48%	50°C x 96h	≈+10%	≈-10%

It can be used for:

Conveying corrosive material that comprises acid as well as alkali in an industrial and mining working environment as well as in fertilizer plants, paper mills and chemical plants. Some of the characteristics of these belts that make these preferably used include:

- Chemical factory
- Paper mills
- Belting for mining industry
- Fertilizer industry
- Belting for cement industry
- In other areas requiring conveying of acid/alkali-forming materials





Special Pattern Chevron Conveyor Belt

Application:

Chevron conveyor belt is suitable for conveying loose, bulky or bagged materials on inclined surface at angles of less than 40 degrees.

Characteristic:

1. There is no joint in belt carcass
2. Long service life
3. Cleats and top cover rubber are vulcanized integrally
4. Cleat pattern, angle and pitch are designed elaborately

Types:

1. Open v and closed v and other patterns
2. The depth of pattern is 15mm–25mm higher the surface
3. Each kind of pattern includes three types, high, medium and low

Pattern Width: 500mm–1400mm



Heat Resistant Conveyor Belt

Product standard: GB/T20021-2005

Model:

- T1 type—*temperature of material up to 100 °C
- T2 type—*temperature of material up to 125 °C
- T3 type—*temperature of material up to 150 °C
- T4 type—*temperature of material up to 175 °C

Features:

The anti-draught body was made up of cotton canvas, nylon, polyester canvas, also be matched with top-bottom rubber cover characters.

Application:

used for heating stations, cement plants, power stations, garbage incineration plants, chemical industry, steel works, metal foundries, metal processing industry
The physical and mechanical properties after heat resistant experiment can conform to below requirements:



Item		Model No.		
		Model.1	Model.2	Model.3
		Range of Variation		
Hardness	The difference between before aging and after aging	20		±20
	Max value after aging (IRHD)	85		
Tensile strength	lowest value after aging, Mpa	12	10	5
	Rate of property change reduces, %≤	-25	-30	-40
Elongation at break	Rate of property change, %≤	-50		-55
	lowest value after aging, %	200		180



PVC/PVG Whole Core Flame Retardant Conveyor Belt

Two types: PVC/PVG

PVC type conveyer belt's upper and lower layers are PVC coating cover, single-sided tape thickness: $\geq 1.0\text{mm}$; PVC type conveyer belt's inclined angle: $< 16^\circ$;

PVG conveyer belt's inclined angle: $< 20^\circ$. PVG type belt's upper and lower layers are nitrile rubber and PVC, single-sided tape thickness: 1.5mm–4.5mm.

Features:

Fire retardant, anti-static, shock resistance, abrasion resistance and corrosion resistance

Applications:

Coal mine underground transport, metallurgy and chemical industry, port, mining electric power industry, construction etc for the material transport.

PVC type technical datas:

Standard MT914-2008						Safety parameter 10 (breaking strength*1/10)	
The slope<16℃							
Standard type	Degree	Breaking strength ≥, Nmm		Elongation at break ≥, %		Thickness mm	Advised minium diameter of the roller
		Vertical	Horizontal	Vertical	Horizontal		
680s	Four	680	265	15	18	8	320
800s	Five	800	280			8.5	400
1000s	Six	1000	300			9	500
1250s	Seven	1250	350			10.1	500
1400s	Eight	1400	350			10.5	630



Safety performances:

Performance name	Alcohol combustion	Propane combustion	Antistatic property	Roller friction
Standard value	Average value $\leq 3\text{S}$, Unit value $\leq 10\text{S}$ (has covering glue)	$\geq 250\text{mm}$	$\leq 3 \times 10^8 \Omega$	$\leq 325^\circ\text{C}$
	Average value $\leq 5\text{S}$, Unit value $\leq 15\text{S}$ (no covering glue)			No spark

PVG type technical datas:

Standard MT914-2008 BS3289 HG2805						Safety parameter 10 (breaking strength*1/10)
Conveying inclination<20℃						
Standard model No	Degree	Breaking strength≥, Nmm		Elongation at break≥, %		Advise minimum diameter of the roller
		Vertical	Horizontal	Vertical	Horizontal	
680s	Four	680	265	15	18	400
800s	Five	800	280			500
1000s	Six	1000	300			630
1250s	Seven	1250	350			750
1400s	Eight	1400	350			750





Cold Resistant Conveyor Belt

Applications:

Suitable for conveying materials outdoors in freezing area, cold storage etc.

Technical indexes:

- 1.Cold resistant conveyor belt can be divided into three types ,according to the properties of cover: Laceration resistant type(H),Anti-abrasive type(D),and Ordinary type(L).
- 2.According to the different cold resistant , it can be divided into two types of C1 and C2 –
Working temperature: -45--+50.

The physical performances of cover rubber:

Item	Index		
	H	D	L
Tensile strength, Mpa $\geq$	24.0	18.0	15.0
Elongation at break, % $\geq$	450	400	35
Aging test (70℃.7d)			
Change rate of tensile strength, %	± 25	± 25	± 25
Change rate of elongation at break, %	± 25	± 25	± 25
Abrasion value, mm ³ $\leq$	120	100	200
Cold-resistant coefficient at elongate, $\geq$	C ₁ (-45℃)	0.3	
	C ₂ (-50℃)	0.2	

Remarks:H-Laceration resistant type D-abrasion resistant type L-ordinary type



Endless Conveyor Belt

It is made after flat conveyor belt production is completed,we will vulcanize the joint of flat conveyor belt (also known as hot sticking), so that it becomes the endless conveyor belt.

The strength of the bonding joint can achieve 90% of the belt main body's strength. There is no significant defects on the surface of the belt, therefore, the belt can transport evenly.

Characteristics:

- No joint,smooth belt surface
- Uniform tension,low elongation
- Long service life

Types:

Ordinary type

Heat resistant type($\leq 120^{\circ}\text{C}$)

Cold resistant(above -40°C)

Acid and alkali resistant

High temperature resistant(below 150°C),etc.



Specifications of multi-layers EP fabric carcass endless conveyor belt:

Fabric		EP-100	EP-150	EP-200	EP-250	EP-300	EP-400
Cloth and rubber skim thickness (mm)		1.1	1.15	1.2	1.3	1.4	1.5
Longitudinal full thickness tensile strength(KN/m)	3 plies	300	450	600	750	900	1200
	4 plies	400	600	800	1000	1200	1600
	5 plies	500	750	1000	1250	1500	2000
	6 plies	600	900	1200	1500	1800	2400
	7 plies	700	1050	1400	1750	2100	2800
	8plies	800	1200	1600	2000	2400	3200
Fabric adhesion (N/mm)		≥ 4.5					
Longitudinal elongation		$\leq 4\%$					
Width (mm)		300~1600					
Rubber thickness (mm)	Top	3~9.5					
	Bottom	1.5~9.5					



General Conveyor Belt

It is made of EP, NN or Cotton fabric and finished through the processes of calendaring, firming and vulcanizing, etc.

It is suitable for conveying informal temperature various non-corrosive pointless lumps, granular or powders such as coal, coke, gravel, cereal, sand and cement in bulk or packaged.

Applications:

They are widely used in mining, port, foundry, quarry, power plant, metallurgy and coal industries to transfer bulk sandy or lump materials, or packaged materials.

Standard: GB/T 7984-2001

The cover rubber layer's physical properties:

Grade of covering rubber	Tensile strength, Mpa, $\geq$	Elongation at break, % $\geq$	Abrasion loss, mm ³ $\leq$	Change rate of tensile strength and elongation at break after 70°Cx168h aging
Laceration resistant type(H)	24	450	120	-25 ~ +25
Abrasion resistant type(D)	18	400	100	-25 ~ +25
Ordinary type(L)	15	350	200	-25 ~ +25

Adhesion strength of cover and ply:

Item	Between the fabric layers	Between cover and belt carcass	
		Cover thickness 0.8-1.5mm	Cover thickness > 1.5mm
Average value of all samples, N/mm $\geq$	4.5	3.2	3.5
Lowest peak value of all samples, N/mm $\geq$	3.9	2.4	2.9
Remark: highest peak value of all samples shall not exceed 20N/mm			

International standards:

We could produce conveyor belt with cover grade that conform to international standards, such as DIN22102, RMA, AS1332, SANS1173, BS3289, JISK6322, etc.

Standards	Cover Rubber			Adhesion		
	Tensile Strength	Elongation at break	Abrasion	Cover to Ply	Cover to Ply	Ply to Ply
	Mpa	%	mm ³	N/mm (≤ 1.5 mm)	N/mm (> 1.5 mm)	N/mm
DIN 22102-Z	15	350	250	3.5	4.5	5
DIN 22102-W	18	400	90	3.5	4.5	5
DIN 22102-Y	20	400	150	3.5	4.5	5
DIN 22102-X	25	450	120	3.5	4.5	5
Standards	Cover Rubber			Adhesion		
	Tensile Strength	Elongation at break	Abrasion	Cover to Ply	Cover to Ply	Ply to Ply
	Mpa	%	mm ³	N/mm (≤ 1.9 mm)	N/mm (> 1.9 mm)	N/mm
AS 1332-N17	17	400	200	4	4.8	6
AS 1332-M24	24	450	125	4	4.8	6
Standards	Cover Rubber			Adhesion		
	Tensile Strength	Elongation at break	Abrasion	Cover to Ply	Cover to Ply	Ply to Ply
	Mpa	%	mm ³	N/mm (≤ 1.6 mm)	N/mm (> 1.6 mm)	N/mm
RMA-I	17	400		3	4.4	4
RMA-II	14	400		3	4.4	4
Standards	Cover Rubber			Adhesion		
	Tensile Strength	Elongation at break	Abrasion	Cover to Ply	Cover to Ply	Ply to Ply
	Mpa	%	mm ³	N/mm	N/mm	N/mm
A	18	400	70	5		7
C	20	400	150	5		7
M	25	450	120	5		7
N	17	400	150	5		7



CONVEYING MACHINERY



Mobile belt conveyor



Fixed extendable belt conveyor



SSJ/SDJ/STJ/STD extendable fixed conveyor



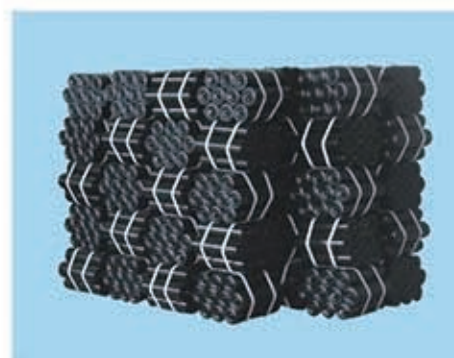
Speed reducer



DYI/JYD type oil cooled electric drive roller



Bend pulley



Ordinary idler



Spherical idler



Spherical idler



Impact idler set



Support



Impact idler



V type idler



TDY type oil cooled electric drive roller