

Conveyor Belts



Features

It is ideal for long-distance, large-capacity and high tensile strength lines.
 Low elongation allows short take-up strokes.
 Small diameter pulleys may be used.

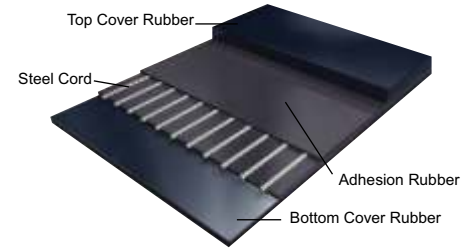
Take-up Stroke Comparison

Carcass	Take-up Stroke Over
Steel Cord	0.35
Nylon	Over 2.1
Polyester	Over 1.4

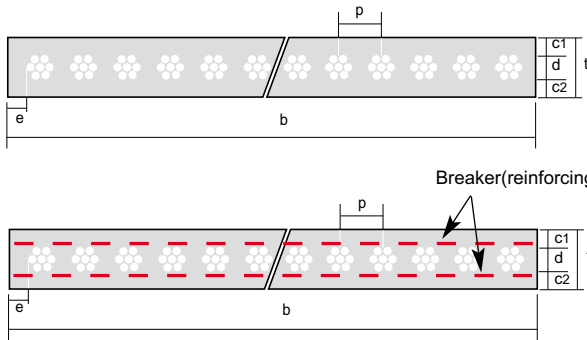
Product Information

Products	Application groups
(1) Belt tensile strength: ST500~ST5000(kN/m)	(1) General Purpose
(2) Belt width: 600~2200mm	(2) Abrasion Resistance
(3) Minimum length: 100m	(3) Heat Resistance
	(4) Oil Resistance
	(5) Fire Resistance

Belt Structure



General Structure

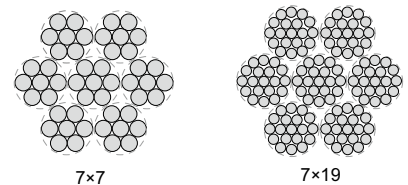


b : Belt width C1 : Top cover rubber thickness C2 : Bottom cover rubber thickness
 d : Cord diameter e : Edge rubber width p : Cord pitch t : Total belt thickness

Breaker(reinforcing fabric)

prevents length-wise tearing by foreign substances or sharp objects
 prevents broken steel cord from protruding through cover rubber
 provides high withdrawal strength (in stationary tests)
 reduces risks for belt breakage by impact

Cord Structure



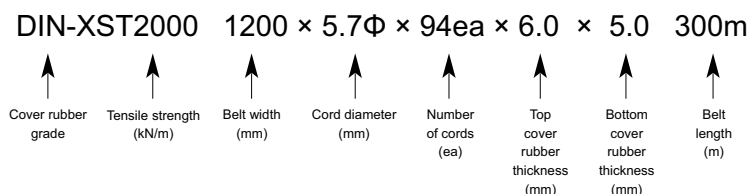
7x7: Applied to low tension lines
 7x19: Applied to high tension lines

Standard Specifications

Specification	Cord diameter (mm)	Cord pitch (mm)	Cord structure	Minimum pulley diameter(mm)		
				Drive/Head	Takeup/Tail	Snub/Bend
ST-500	2.5	10	7x7	600	500	350
ST-630	2.7	10	7x7	600	500	350
ST-800	3.1	10	7x7	650	500	400
ST-900	3.3	10	7x7	700	550	450
ST-1000	3.6	12	7x7	700	550	450
ST-1250	4.0	12	7x7	850	700	500
ST-1400	4.3	12	7x7	950	750	550
ST-1600	4.7	12	7x7	1000	800	600
ST-1800	5.0	12	7x7	1200	950	700
ST-2000	5.2	12	7x7	1200	950	700
ST-2500	6.8	15	7x19	1500	1200	900
ST-2800	7.2	15	7x19	1550	1250	950
ST-3000	7.4	15	7x19	1700	1350	1000
ST-4000	8.6	15	7x19	1850	1400	1050
ST-5000	9.6	15	7x19	2100	1700	1250

Note : Please contact your representative as specifications other than the above are available.

Belt Marking Protocol



Features



Material Quality

Nylon (NN)

- Highly flexible.
- Highly resistant against impact.
- Highly bendable.

Polyester (EP)

- Less elongation.
- Less deformed by heat.
- Less affected by moisture.

Belt Structure



Product Information

Products	Application groups
(1) Belt Tensile Strength : 100~3150(kN/m)	(1) General Purpose
(2) Belt width : 300~2200mm	(2) Abrasion Resistance
(3) Minimum length : 50m	(3) Heat Resistance
	(4) Oil Resistance
	(5) Fire Resistance
	(6) Chemical Resistance
	(7) Anti-Static
	(8) Color

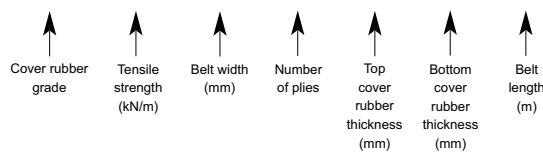
Standard Specifications

Belt strength (kN/m)	Belt specifications				Belt width (mm/inch)															
	Plies	Carcass type	Cover rubber (mm)		300	400	500	600	700	800	900	1000	1050	1200	1400	1600	1800	2000	2200	
			Top rubber	Bottom rubber	12	16	20	24	28	32	36	40	42	48	56	64	72	80	88	
160	2	NN, EP	3.2	1.6																
250	2~3	NN, EP	3.2	1.6																
315	2~4	NN, EP	4.8	1.6																
400	2~4	NN, EP	4.8	1.6																
500	2~4	NN, EP	4.8	1.6																
630	3~5	NN, EP	4.8	1.6																
800	3~6	NN, EP	4.8	2.4																
1000	4~6	NN, EP	4.8	2.4																
1250	4~6	NN, EP	4.8	2.4																
1500	5~6	NN, EP	6.4	3.2																
2000	5~6	NN, EP	6.4	3.2																

Note : Please contact your representative as specifications other than the above are available.

Belt Marking Protocol

JIS-SNN630 1200 × 4P × 6.4 × 3.2 300m



Features



It is more economical to use a thermostable conveyor belt when transporting materials with 60°C or higher temperature. Damage to cover rubber varies depending on the temperature or shape of transported materials and it is critical to choose suitable belt materials depending on the use conditions. The relationship between the cargo and the belt surface temperature is especially noteworthy. This is because cooling is mainly achieved on the return trip as the temperature of the belt surface is different from that of the cargo, although it varies depending on the cargo shape, belt length, speed, operation environment and hours.

Grade	Features	Applications
HRS	Being a belt made of heat-hardening SBR materials, it has good abrasion resistance though some cracks are generated as cover rubber gets hardened by heat if used for a long time.	High abrasion resistance, Medium temperature
HRB	Being a belt made of heat-softening IIR materials, it has good resistance against cracks though its cover rubber gets softened by heat if used for a long time. It is suitable to transport cement or clinker with little abrasion.	Crack resistance, Medium high temperature
HRP	Being a belt made of EPR materials, it demonstrates outstanding performance in transporting hot materials as it has high resistance against abrasion and cracks.	High abrasion resistance, Crack resistance, High temperature
HRP (plus)	Being a new concept HRP product whose crack resistance is reinforced, you may experience a longer life span.	High abrasion resistance, Crack resistance, High temperature

Selection of Belts by Material Type and Temperature

Grain shape Material handled	Powder materials					Lump materials					
	Cement, Chemical, Fertilizer, Soda ash, Casting sand, Clinker					Sintered ore, Cokes, Limestone, Iron Ore, Clinker					
Maximum temperature of material handled	120	150	200	200	400	200	200	400	400		
	↓	↓	↓	↓	↓	↓	↓	↓	↓		
Average temperature of material handled	60	80	100	120	150	180	60	100	120	150	200
Maximum temperature of belt surface	50	80	100	120	150	180	50	80	100	130	180
HRS(SBR)	██████████					██████████					
HRB(Butyl)	██████████					██████████					
HRP (EPR)/HRP (plus)	██████████					██████████					

Relation between Material and Belt Surface Temperature

Belt surface temperature varies depending on material types, shapes, sizes, belt cycle time, and trough angle. The heat-resistant belts should be selected based on their surface temperature as their life span depends on the belt surface temperature.

Material handled	Temperature of material handled(°C)	Belt surface temperature(°C)	Used grade
Sintered ore	200~350	90~150	HRP
Cokes	60~200	40~60	HRS
Clinker	200~300	100~150	HRB
Clinker	300~400	150~180	HRP
Cement	110~140	100~110	HRB
Fertilizer	80~100	60~80	HRS
Casting cast	~100	60~80	HRS
	100~150	110~130	HRP

Features

Intended to prevent line loss while reducing flame damage to the belt by suppressing ignition, fire resistant conveyor belts are mainly used in grain processing industries, fertilizer plants, thermoelectric power plants, and mines.

Fire Resistance Testing

Standard	Laboratory flame test		Reappearance of Flame	Drum friction test	Electric resistance	Other Items
	Flame	Glow				
JIS	Each less than 15 sec. Total of 6 samples less than 45 sec.	None	Not permitted	None	None	None
ISO	Each less than 15 sec. Total of 6 samples less than 45 sec.	None	Not permitted	None	Less than $3 \times 10^8 \Omega$	None
DIN	Each less than 15 sec. Total of 6 samples less than 45 sec.	None	Not permitted	None	Less than $3 \times 10^8 \Omega$	None
MSHA (USA)	Avr. less than 60 sec.	Avr. less than 180 sec.	Not permitted	None	Less than $3 \times 10^8 \Omega$	None
AS (Australia)	Avr. less than 10 sec. Each less than 15 sec.	Avr. less than 120 sec. Each less than 180 sec.	Not permitted	Less than 325°C on drum surface and no glow	Less than $3 \times 10^8 \Omega$	None
CSA (Canada)	Avr. less than 60 sec.	Avr. less than 180 sec.	Not permitted	Less than 400°C on drum surface and no glow	Less than $3 \times 10^8 \Omega$	None

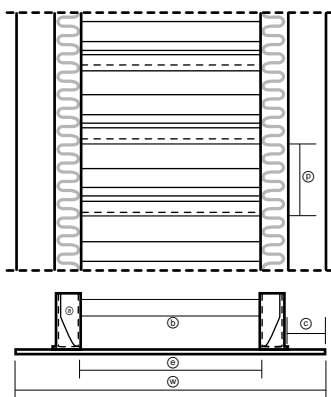
MSHA (USA), CAN/CSA-M422 (Canada), MDA-M5010 (Australia) certified

Fire Resistant Belt Grades

Grade	Application
FR, JIS-FR, MSHA	Suitable for lines that require general fire resistance.
DIN-K, FRJIS-A, FRSAR	Suitable for lines that require fire and abrasion resistance.
FR-NH, FR-ENH	Suitable for lines that require fire resistance in an environment where goods are handled at high temperatures (up to 150°C).
ORN-FR-ANTIS	Suitable for lines that require fire and oil resistance and anti-static features.
DIN-S, AS-S	Suitable for lines transporting flammable goods in an underground environment.
FR Cleanface	Cleanface belt with cake reduction feature and added fire resistance.

Corrugated Sidewall Conveyor Belt

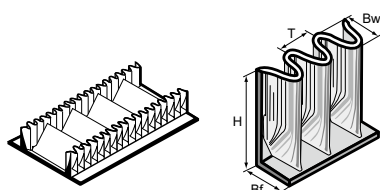
General Shape and Name of Corrugated Sidewall Conveyor Belts



- Ⓐ : Corrugated Sidewall
- Ⓑ : Cleat
- Ⓒ : Free Zone width
- Ⓓ : Effective width
- Ⓔ : Cleat pitch
- Ⓜ : Belt width

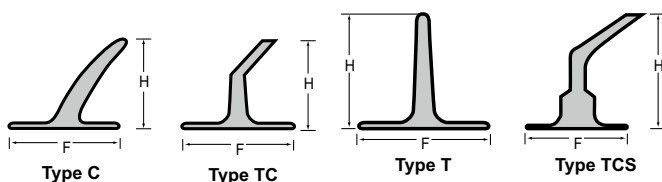
H(mm)	Bw(mm)	Bf(mm)	T(mm)
60	45	50	45
80	45	50	45
100	45	50	45
120	45	50	45
120	70	80	60
180	65	75	63
160	65	75	63
200	65	75	63
240	65	75	63
280	65	75	63
400	90	100	84

Corrugated Sidewall Dimension and Types



Type	H(mm)	F(mm)
C	90	100
	120	140
	140	140
T	90	110
	110	110
	180	180
TC	230	300
	110	100
	140	140
	180	160
	220	180
TCS	230	230
	240	160
	280	280
	280	240
TCS	360	225

Dimension and Types of Cleats



austinDRIVE has been steadily growing in automotive and industrial rubber product markets after starting out with power transmission and conveyor belt production. We provides high value-added products and services to our customers, leading their diverse industry fields in the world market, based on accumulated experiences and technological capabilities. Over 20 years, **austinDRIVE** has been providing outstanding products and services to UK's leading automotive, electronic and steel manufacturers who have achieved strong footholds in the world market, and consequently, **austinDRIVE** has formed strong business partnerships with those companies.



LINE CARD

- Steel Cord Conveyor Belt
- Multi-Ply Conveyor Belt
- Mono-Ply Conveyor Belt
- Aramid Conveyor Belt
- Less-Ply Conveyor Belt
- General, Abrasion Resistant Conveyor Belt
- Heat Resistant Conveyor Belt
- Fire Resistant Conveyor Belt
- Oil Resistant, Chemical Resistant, Anti Static, Color Conveyor Belt
- Bucket Elevator Conveyor Belt
- Chevron Conveyor Belt / Rough Top Conveyor Belt
- Filter Belt
- Seal Belt
- Rip Protection Steel Cord Conveyor Belt, Impact/Cut Resistant Conveyor Belt
- IW Steel-Cord Conveyor Belt, Clean face Conveyor Belt
- Hybrid Conveyor Belt
- Energy Saving Conveyor Belt
- Pipe Conveyor Belt
- Return Pipe Conveyor Belt
- Corrugated Sidewall Conveyor Belt
- Air Floating Conveyor Belt

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