BANDO

CONVEYOR BELT DIV.

COMPANY PROFILE

1906 **BANDO CHEMICAL INDUSTRIES Ltd. JAPAN**

During 1890's he began to research and develop an original type of industrial belt

After 10 years of extensive research he succeed to design a new belt, the first time of its kind, and was patented as BANDO BELT under Japanese Patent No 3384

In 1906 the first Bando factory was built in Kobe and since that start Bando never stop to develop new technologies for power transmission and conveyor belt and becomes one of the world's leading integrated manufactures of rubber based products

1987 **PT. BANDO INDONESIA**

Joint venture Bando Chemical Industries ltd. Japan with PT. Kreasi Utama Investama.

Board of Director

President Director	: Mr. Gautama Hartarto
VP Director	: Mr. Hisayoshi Sakakura
Director	: Ms. Eileen Poh
Director	: Mr. Hartono Djojo
Director	: Mr. Freddy Rondonuwu
Director	: Mr. Fumiya Yamamoto

First Production in PT. Bando Indonesia

COMPANY PROFILE

1995 **PT. BANDO INDONESIA**

Expanded to Conveyor Productions

2010 **PT. BANDO INDONESIA**

Started productions of Variable Speed Belt for scooter

COMPANY PROFILE

Kementerian Perindustrian
REPUBLIK INDONESIA

TANDA SAH CAPAIAN TINGKAT KOMPONEN DALAM NEGERI

Sesuai dengan Peraturan Menteri Perindustrian Republik Indonesia Nomor 02/M-IND/PER/1/2014 tentang Pedoman Peningkatan Penggunaan Produk Dalam Negeri Dalam Pengadaan Barang/Jasa Pemerintah, Nomor 03/M-IND/PER/1/2014 tentang Pedoman Peningkatan Penggunaan Produk Dalam Negeri Dalam Pengadaan Barang/Jasa Pemerintah Yang Tidak Dibiayai Dari Anggaran Pendapatan Dan Belanja Negara/Anggaran Pendapatan Dan Belanja Daerah, dan Peraturan Menteri Perindustrian No. 16/M-IND/PER/2/2011 tentang Ketentuan dan Tata Cara Penghitungan Tingkat Komponen Dalam Negeri, hasil verifikasi atas Capaian Tingkat Komponen Dalam Negeri (TKDN) adalah sebagai berikut:

Jenis Produk	:	Conveyor Belt
Tipe	:	Terlampir
Spesifikasi	:	Terlampir
Merk	:	Terlampir
Nilai TKDN	:	Terlampir
Terbilang	:	Terlampir
Standard Produk	:	-
Sertifikat Produk	:	-
No. Laporan	:	TKDN - 16- 1700375 S/D TKDN - 16 - 1700376

yang telah ditandasahkan oleh Kementerian Perindustrian dan berlaku 3 tahun terhitung sejak tanggal tanda sah,

diberikan kepada:

Nama Perusahaan	:	PT. BANDO INDONESIA
Alamat	:	Jl. Gajah Tunggal, Kel. Pasir Jaya, Kec. Jati Uwung, Tangerang 15135
NPWP	:	010616597052000
Jenis Industri	:	Industri Barang dari Karet untuk Keperluan Industri (KBLI: 22192)
No. Tanda Sah	:	1/IKTA/TKDN/1/2018

Jakarta, 2 Januari 2018

DIREKTUR JENDERAL INDUSTRI KIMIA, TEKSTIL DAN ANEKA

Achmad Sigit Dwiwahjono

SYSTEM CERTIFICATION ISO 9001 SGS

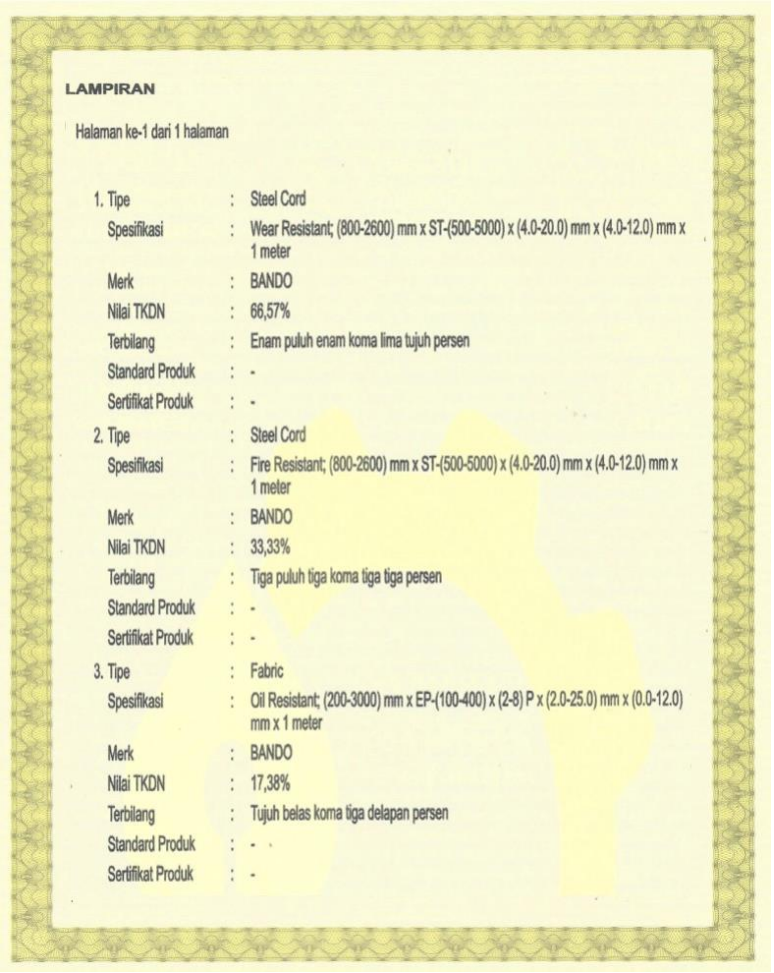
SYSTEM CERTIFICATION ISO 14001 SGS

SYSTEM CERTIFICATION OHSAS 18001 SGS

Kementerian Perindustrian
REPUBLIK INDONESIA

1992	RECEIVED THE JIS K 6323 CERTIFICATION
1996	RECIEVED THE “QUALITY ASSURANCE” ISO 9002 CERTIFICATION FROM SGS “V-BELT”
2000	RECIEVED THE “QUALITY ASSURANCE” ISO 9002 CERTIFICATION FROM SGS “ CONVEYOR BELT”
2001	RECIEVED THE “QUALITY MANAGEMENT SYSTEM” ISO 9001 CERTIFICATION FROM SGS
2004	RECIEVED THE “ENVIRONMENT MANAGEMENT SYSTEM” ISO 14001 CERTIFICATION FROM SGS
2008	RECIEVED THE “ENVIRONMENT MANAGEMENT SYSTEM” ISO 9001 CERTIFICATION FROM SGS
2013	RECEIVED THE “HEALTH & SAFETY MANAGEMENT” CERTIFICATION FROM SGS
2018	RECEIVED THE “TKDN” CERTIFICATION FROM MINISTRY OF INDUSTRY

COMPANY PROFILE



LAMPIRAN

Halaman ke-1 dari 1 halaman

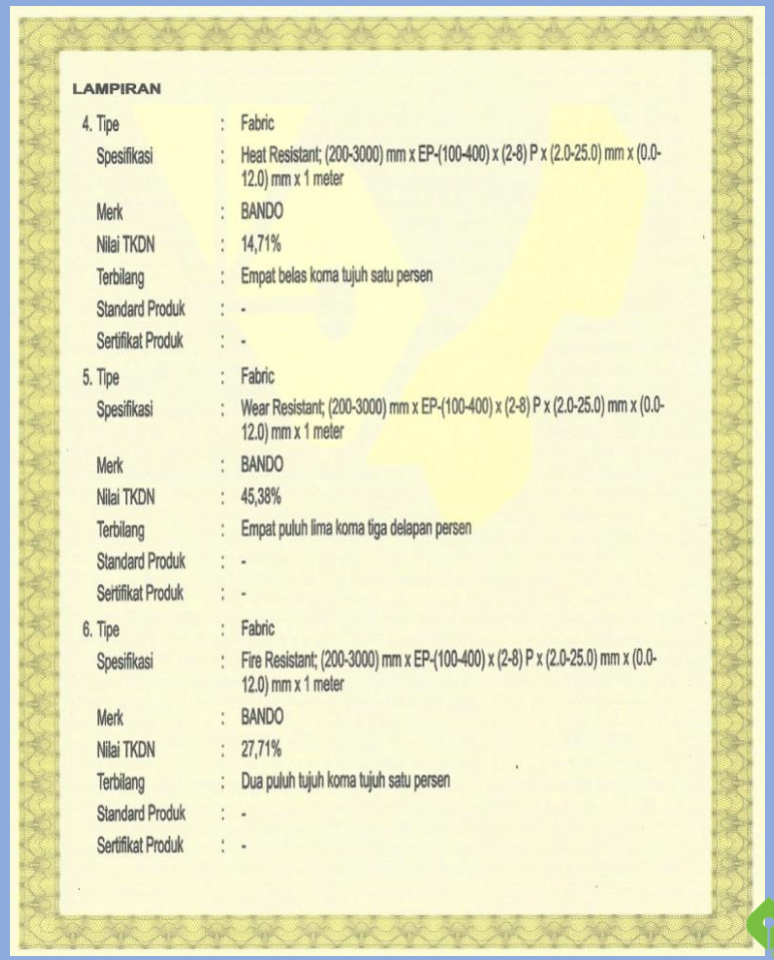
1. Tipe	:	Steel Cord
Spesifikasi	:	Wear Resistant; (800-2600) mm x ST-(500-5000) x (4.0-20.0) mm x (4.0-12.0) mm x 1 meter
Merk	:	BANDO
Nilai TKDN	:	66,57%
Terbilang	:	Enam puluh enam koma lima tujuh persen
Standard Produk	:	-
Sertifikat Produk	:	-
2. Tipe	:	Steel Cord
Spesifikasi	:	Fire Resistant; (800-2600) mm x ST-(500-5000) x (4.0-20.0) mm x (4.0-12.0) mm x 1 meter
Merk	:	BANDO
Nilai TKDN	:	33,33%
Terbilang	:	Tiga puluh tiga koma tiga tiga persen
Standard Produk	:	-
Sertifikat Produk	:	-
3. Tipe	:	Fabric
Spesifikasi	:	Oil Resistant; (200-3000) mm x EP-(100-400) x (2-8) P x (2.0-25.0) mm x (0.0-12.0) mm x 1 meter
Merk	:	BANDO
Nilai TKDN	:	17,38%
Terbilang	:	Tujuh belas koma tiga delapan persen
Standard Produk	:	-
Sertifikat Produk	:	-

SYSTEM CERTIFICATION ISO 9001 SGS

SYSTEM CERTIFICATION ISO 14001 SGS

SYSTEM CERTIFICATION OHSAS 18001 SGS

Kementerian Perindustrian
REPUBLIK INDONESIA



LAMPIRAN

4. Tipe	:	Fabric
Spesifikasi	:	Heat Resistant; (200-3000) mm x EP-(100-400) x (2-8) P x (2.0-25.0) mm x (0.0-12.0) mm x 1 meter
Merk	:	BANDO
Nilai TKDN	:	14,71%
Terbilang	:	Empat belas koma tujuh satu persen
Standard Produk	:	-
Sertifikat Produk	:	-
5. Tipe	:	Fabric
Spesifikasi	:	Wear Resistant; (200-3000) mm x EP-(100-400) x (2-8) P x (2.0-25.0) mm x (0.0-12.0) mm x 1 meter
Merk	:	BANDO
Nilai TKDN	:	45,38%
Terbilang	:	Empat puluh lima koma tiga delapan persen
Standard Produk	:	-
Sertifikat Produk	:	-
6. Tipe	:	Fabric
Spesifikasi	:	Fire Resistant; (200-3000) mm x EP-(100-400) x (2-8) P x (2.0-25.0) mm x (0.0-12.0) mm x 1 meter
Merk	:	BANDO
Nilai TKDN	:	27,71%
Terbilang	:	Dua puluh tujuh koma tujuh satu persen
Standard Produk	:	-
Sertifikat Produk	:	-

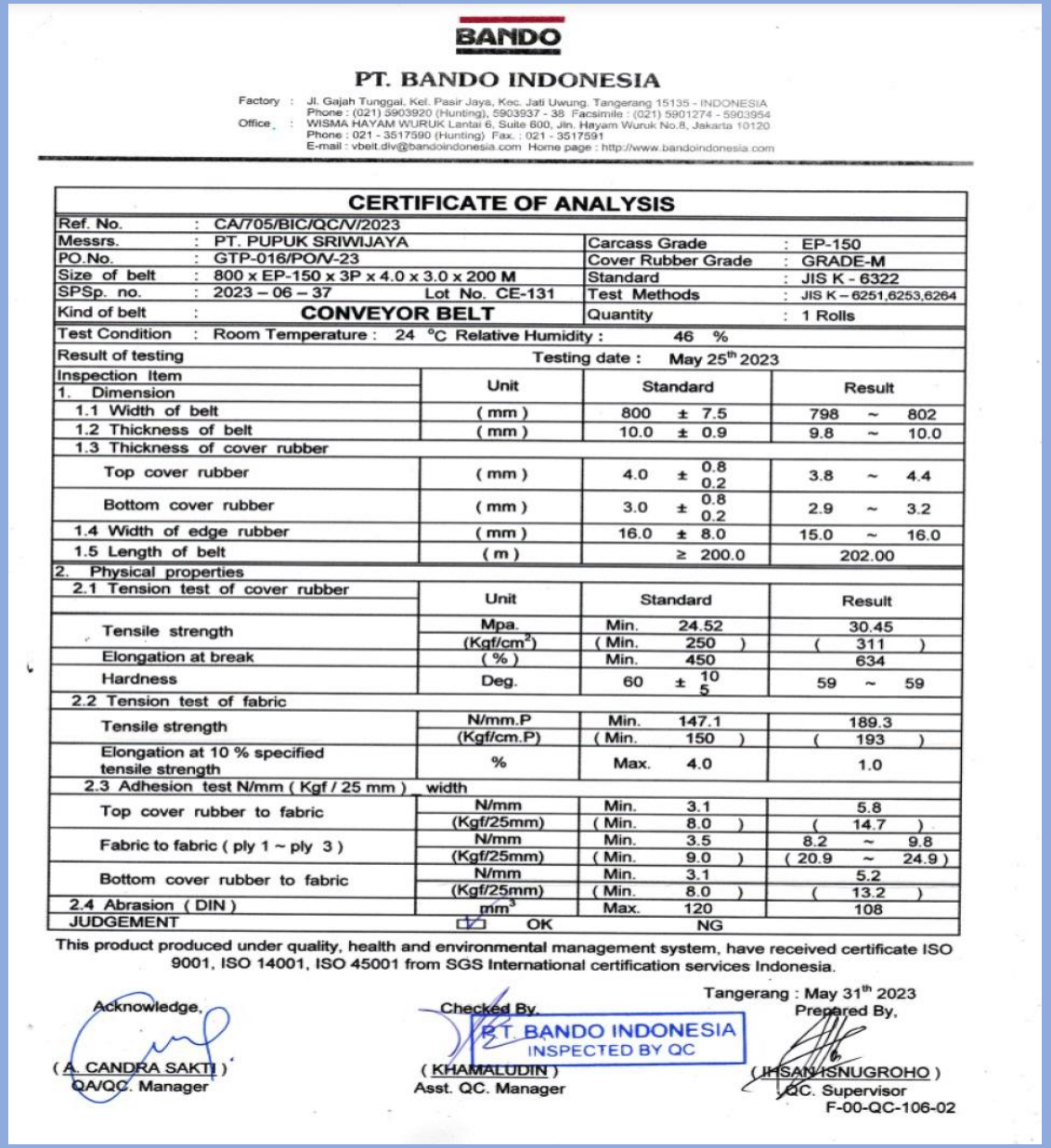
SYSTEM CERTIFICATION ISO 9001 SGS

SYSTEM CERTIFICATION ISO 14001 SGS

SYSTEM CERTIFICATION OHSAS 18001 SGS

Kementerian Perindustrian
REPUBLIK INDONESIA

COA (Certificate Of Analysis)



BANDO

PT. BANDO INDONESIA

Factory : Jl. Gajah Tunggal, Kel. Pasir Jaya, Kec. Jati Uwung, Tangerang 15135 - INDONESIA
Phone : (021) 5903920 (Hunting), 5903937 - 38 Facsimile : (021) 5901274 - 5903954
Office : WISMA HAYAM WURUK Lantai 6, Suite 600, Jln. Hayam Wuruk No.8, Jakarta 10120
Phone : 021 - 3517590 (Hunting) Fax. : 021 - 3517591
E-mail : vbelt.div@bandoindonesia.com Home page : http://www.bandoindonesia.com

CERTIFICATE OF ANALYSIS

Ref. No.	: CA/705/BIC/QC/V/2023		
Messrs.	: PT. PUPUK SRIWIJAYA	Carcass Grade	: EP-150
PO.No.	: GTP-016/PO/V-23	Cover Rubber Grade	: GRADE-M
Size of belt	: 800 x EP-150 x 3P x 4.0 x 3.0 x 200 M	Standard	: JIS K - 6322
SPSp. no.	: 2023 – 06 – 37 Lot No. CE-131	Test Methods	: JIS K – 6251,6253,6264
Kind of belt	: **CONVEYOR BELT**	Quantity	: 1 Rolls
Test Condition	: Room Temperature : 24 °C Relative Humidity :	46 %	
Result of testing		Testing date :	May 25th 2023

Inspection Item	Unit	Standard	Result
1. Dimension			
1.1 Width of belt	(mm)	800 ± 7.5	798 ~ 802
1.2 Thickness of belt	(mm)	10.0 ± 0.9	9.8 ~ 10.0
1.3 Thickness of cover rubber			
Top cover rubber	(mm)	4.0 ± 0.8 / 0.2	3.8 ~ 4.4
Bottom cover rubber	(mm)	3.0 ± 0.8 / 0.2	2.9 ~ 3.2
1.4 Width of edge rubber	(mm)	16.0 ± 8.0	15.0 ~ 16.0
1.5 Length of belt	(m)	≥ 200.0	202.00
2. Physical properties			
2.1 Tension test of cover rubber	Unit	Standard	Result
Tensile strength	Mpa.	Min. 24.52	30.45
	(Kgf/cm²)	(Min. 250)	(311)
Elongation at break	(%)	Min. 450	634
Hardness	Deg.	60 ± 10 / 5	59 ~ 59
2.2 Tension test of fabric			
Tensile strength	N/mm.P	Min. 147.1	189.3
	(Kgf/cm.P)	(Min. 150)	(193)
Elongation at 10 % specified tensile strength	%	Max. 4.0	1.0
2.3 Adhesion test N/mm (Kgf / 25 mm)	width		
Top cover rubber to fabric	N/mm	Min. 3.1	5.8
	(Kgf/25mm)	(Min. 8.0)	(14.7)
Fabric to fabric (ply 1 ~ ply 3)	N/mm	Min. 3.5	8.2 ~ 9.8
	(Kgf/25mm)	(Min. 9.0)	(20.9 ~ 24.9)
Bottom cover rubber to fabric	N/mm	Min. 3.1	5.2
	(Kgf/25mm)	(Min. 8.0)	(13.2)
2.4 Abrasion (DIN)	mm³	Max. 120	108
JUDGEMENT	☑ OK	NG	

This product produced under quality, health and environmental management system, have received certificate ISO 9001, ISO 14001, ISO 45001 from SGS International certification services Indonesia.

Tangerang : May 31th 2023

Acknowledge,
(A. CANDRA SAKTI)
QA/QC. Manager

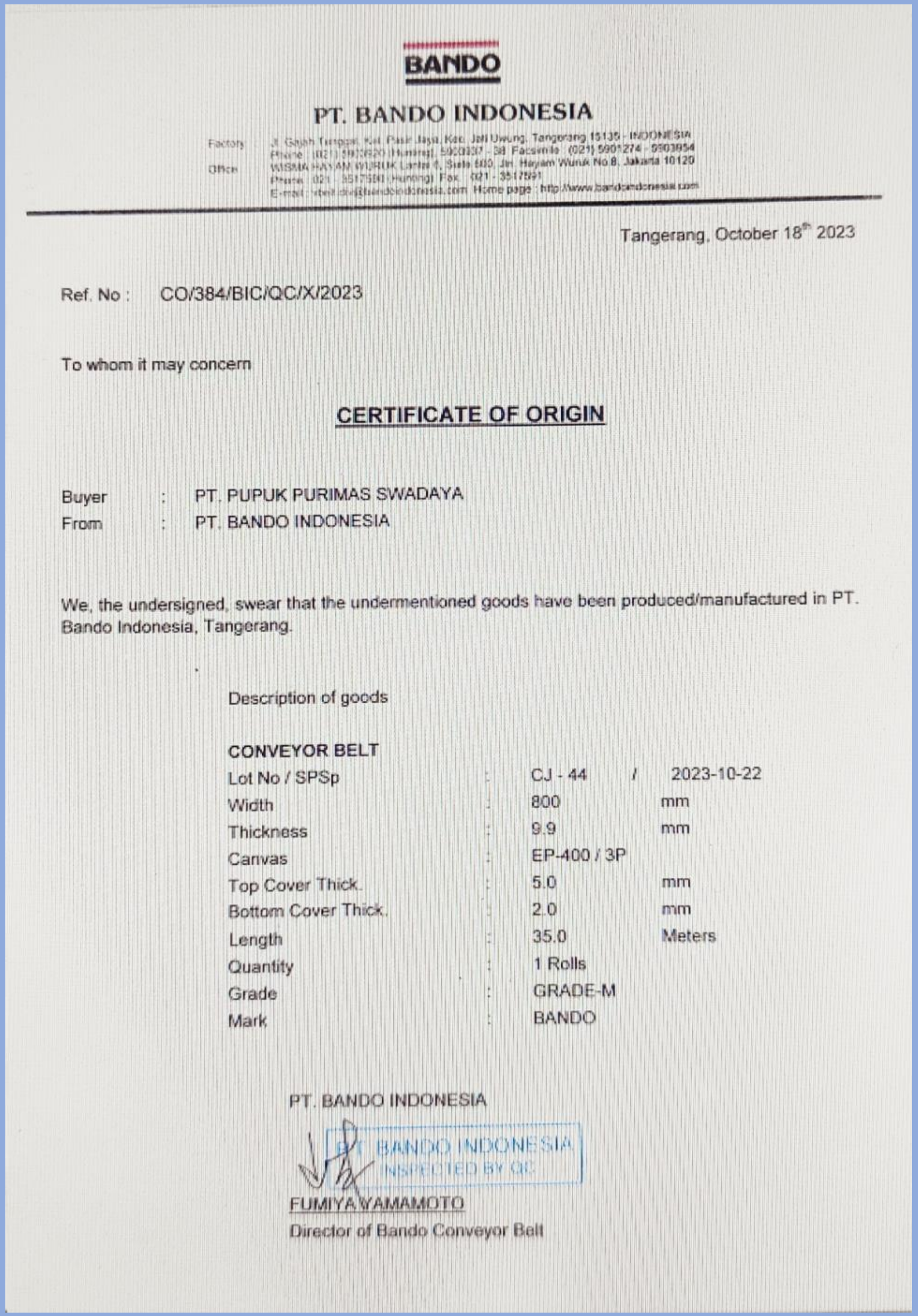
Checked By,
PT. BANDO INDONESIA
INSPECTED BY QC
(KHAMALUDIN)
Asst. QC. Manager

Prepared By,
(IHSAN ISNUGROHO)
QC. Supervisor

F-00-QC-106-02

COMPANY PROFILE

COO (Certificate Of Origin)


BANDO

PT. BANDO INDONESIA

Factory: Jl. Gajah Tunggal, Kel. Pasir Jaya, Kec. Jati Uwung, Tangerang 15135 - INDONESIA
Phone: (021) [illegible] (Hunting), 5900337 - 38 Facsimile: (021) 5901274 - 5903954
Office: WISMA HAYAM WURUK Lantai 6, Suite 600, Jln. Hayam Wuruk No.8, Jakarta 10120
Phone: 021 - 3517580 (Hunting) Fax: 021 - 3517591
E-mail: [illegible] Home page: http://www.bandoindonesia.com

Tangerang, October 18th 2023

Ref. No : CO/384/BIC/QC/X/2023

To whom it may concern

CERTIFICATE OF ORIGIN

Buyer : PT. PUPUK PURIMAS SWADAYA
From : PT. BANDO INDONESIA

We, the undersigned, swear that the undermentioned goods have been produced/manufactured in PT. Bando Indonesia, Tangerang.

Description of goods

CONVEYOR BELT

Lot No / SPSp	:	CJ - 44 /	2023-10-22
Width	:	800	mm
Thickness	:	9.9	mm
Canvas	:	EP-400 / 3P	
Top Cover Thick.	:	5.0	mm
Bottom Cover Thick.	:	2.0	mm
Length	:	35.0	Meters
Quantity	:	1 Rolls	
Grade	:	GRADE-M	
Mark	:	BANDO	

PT. BANDO INDONESIA

PT. BANDO INDONESIA
INSPECTED BY QC

FUMIYA YAMAMOTO
Director of Bando Conveyor Belt

BELT KNOWLEDGE | PRODUCTS | TROUBLESHOOTING | CONTACT US

COA (Certificate Of Manufacture)

BANDO

PT. BANDO INDONESIA

Factory : [illegible] Tangerang 15135 - INDONESIA
Phone : [illegible] Facsimile : [illegible]
Office : WISMA [illegible] Jakarta 10120
Phone : [illegible] Fax : [illegible]
E-mail : [illegible] Home page : [illegible]

Tangerang, October 18th 2023

Ref. No : CM/394/BIC/QC/X/2023

" TO WHOM IT MAY CONCERN "

Subject : **CERTIFICATE OF MANUFACTURE**

Dear sir,

We would like to explain about rubber conveyor belt as below :

CONVEYOR BELT

Mark	:	BANDO
Lot No / SPSp	:	CJ - 44 / 2023-10-22
Size	:	800 x EP-400 / 3P x 5.0 x 2.0
Length	:	35.0 Meters
Grade	:	GRADE-M
Quantity	:	1 Rolls
Buyer	:	PT. PUPUK PURIMAS SWADAYA

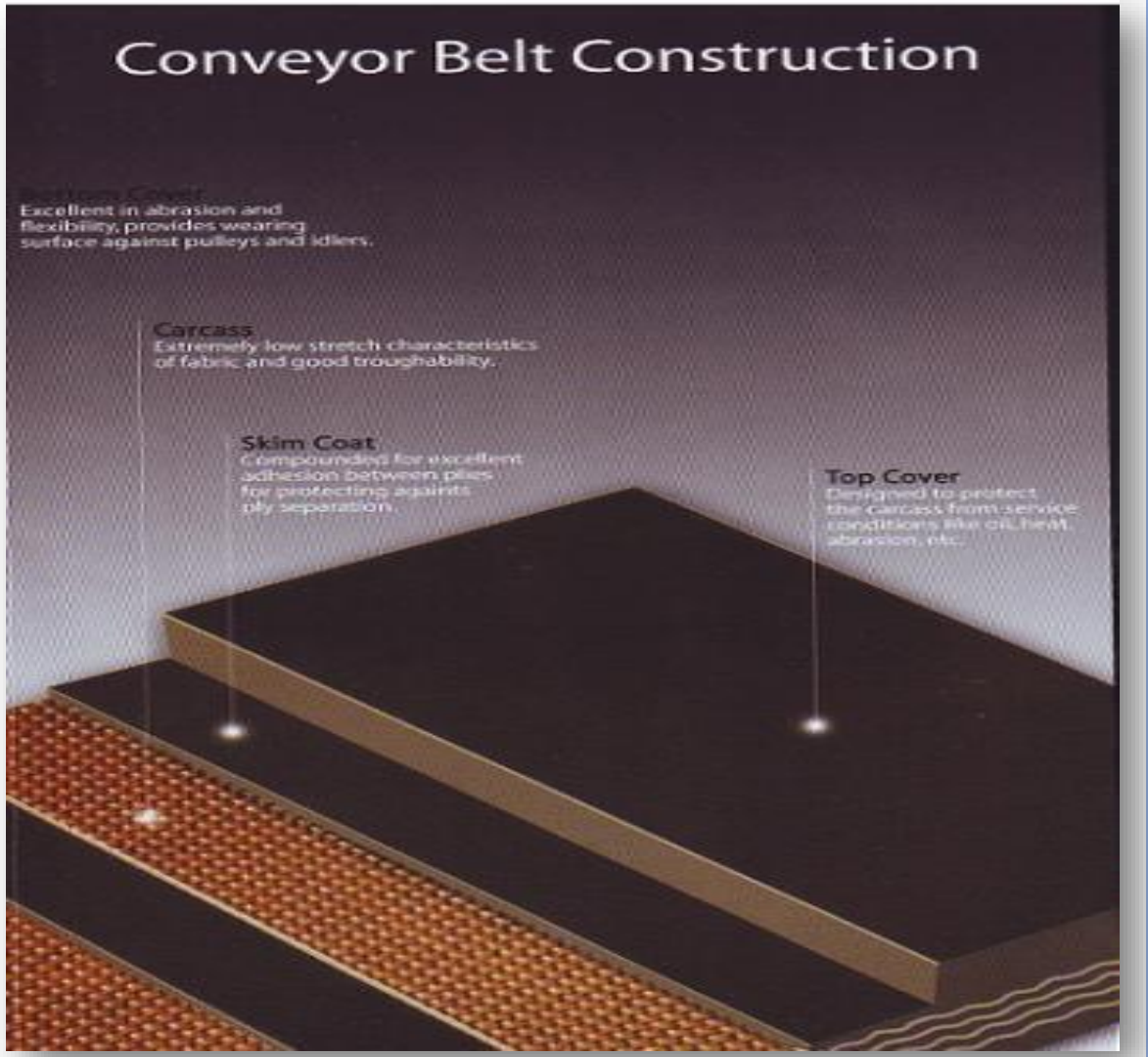
This rubber conveyor belt is sincere manufactured by PT. BANDO INDONESIA - Tangerang is good condition.

Thank you very much for your cooperation.

PT. BANDO INDONESIA

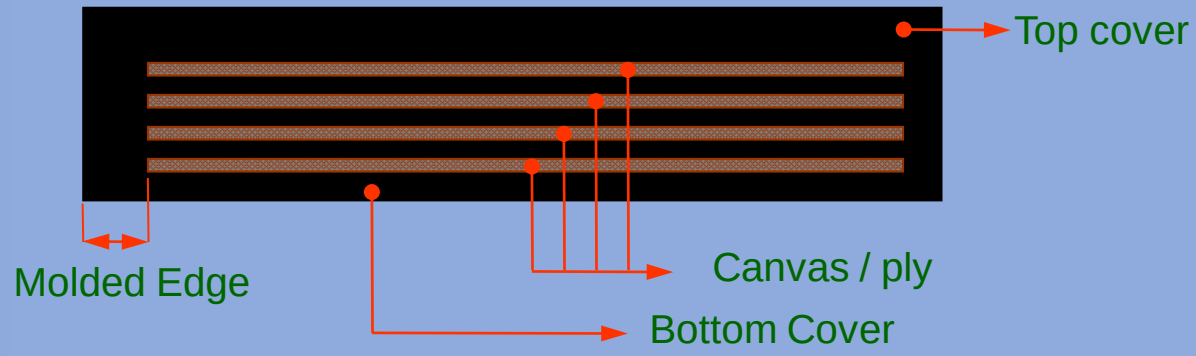
PT. BANDO INDONESIA
INSPECTED BY QC

F. YAMAMOTO
Director of Conveyor Belt Division

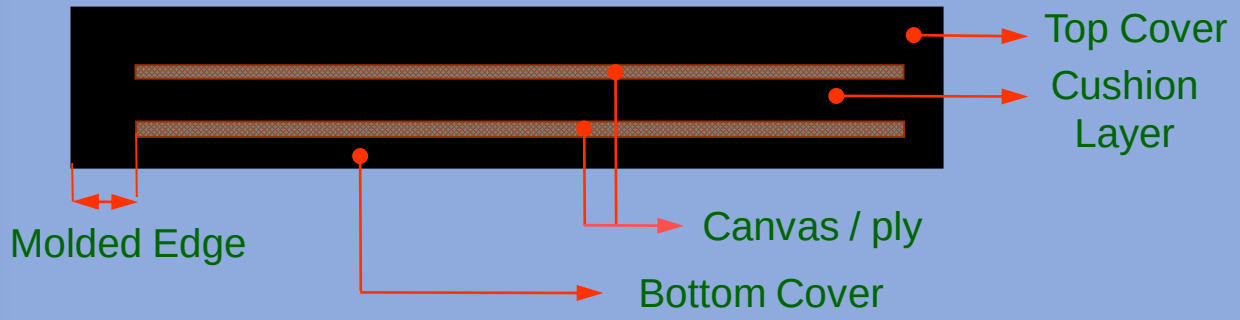


Belt Constructions

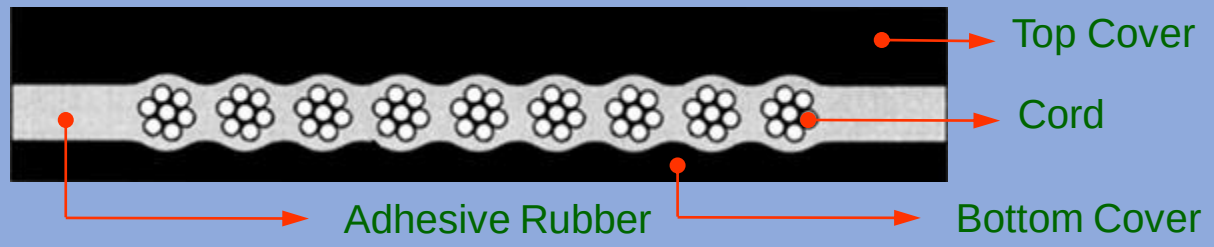
Multi-ply



Less-ply (SUNLON)



Steel Cord



JIS - L (Light)

JIS - G (General)

JIS - S (Special)

GRADE - M (High Quality)

General Use Cover Rubber

JIS–L Used for general conveyor belts when the materials to convey is not abrasive and don't need a high tension. Abrasion max. 400mm^3

JIS-G Used for general conveyor belts when the materials to convey is medium abrasive and medium tension. Abrasion max. 250mm^3

JIS-S Used for general conveyor belts when the materials to convey is abrasive and high tension. Abrasion max. 200mm^3

Grade M Used as cover rubber for general and high tension conveyor belts, superior in abrasion resistance and cut-and-gouge resistance. Excellent cold resistance down to - 50° F. Abrasion max. 120mm^3

UIP (Ultra Impact Protector)

SAR (Super Abrasive Resistant)

CR (Chemical Resistant)

Special Use Cover Rubber

UIP — Used as cover rubber for general and high tension conveyor belts
Superior in impact-resistance and cut-and gouge resistance
Suitable for conveying large-size lumps, sharp and rugged materials.

SAR — Used as cover rubber for general and high tension conveyor belts
Superior in very high abrasion-resistance
Abrasion max. 90mm ^{3}

CR — For handling various kinds of chemicals

OR-220 (Oil Resistant)

OR-210 (Oil Resistant)

FR-300T (Fire Resistant)

Special Use Cover Rubber

FR 300T This self-extinguishing belt is suitable for mines and other locations when potential for fire hazard exist, e.g. in underground operations

OR 210 Excellent oil resistance with NBR compound. Generally use to convey materials soaked with or containing oil with the exception of aromatic solvent, halogenated hydro carbon, ketone or ester

OR 220 Medium oil resistance with cold resistance
Typical application : wood chips, refrigerated fish, etc

HC-510 (Heat Carry)

HC-513 (Heat Carry)

HC-710 (Heat Carry)

Special Use Cover Rubber

HC510 SBR type standard Heat Resistant belt with excellent abrasion resistance

Max. temperature of material handled is 150° C and max. temperature of belt surface is 100° C

HC513 NEW! Characteristics and performance look like HC-510, but HC-513 have abrasion and crack resistance better than HC-510.

HC710 Special compound with Ethylene Propylene Rubber (EPR), features excellent heat resistance and abrasion resistance

Max. temperature of material handled is about 400° C and max. temperature of belt surface is 180° C

Cover Rubber Properties

Test Type		Unit	QB	JIS L	JIS G	JIS S	Grade M	UIP	SAR
Before Aging	Tensile Strength	Kgf/cm^2	75	80	140	180	250	180	140
	Elongation at Break	%	250	300	400	450	450	350	400
	Tear Strength	KN/m	20	20	39	49	98	90	39
	Abrasion Loss	mm^3	450	400	250	200	120	150	90
Hardness JIS A		o	60^{+10}_{-5}	60^{+10}_{-5}	60^{+10}_{-5}	60^{+10}_{-5}	60^{+10}_{-5}	70^{+10}_{-5}	60^{+10}_{-5}
After Aging 70 ± 1 °C	Tensile Strength	%	±40	±40	±30	±25	±25	±40	±30
	Ozone Crack	Hour	168	168	168	168	168	168	168
	EB	%	±40	±40	±30	±25	±25	±40	±30

Cover Rubber Properties

Test Type		Unit	HC-510*	HC-513*	HC-710**	OR-210	OR-220	FR-300T	CR
Before Aging	Tensile Strength	Kgf/cm^2	100	140	85	100	180	180	140
	Elongation at Break	%	400	400	400	400	400	450	400
	Tear Strength	KN/m	20	20	20	29	29	49	39
	Abrasion Loss	mm^3	300	250	200	300	300	200	250
Hardness JIS A		o	58^{+10}_{-5}	65^{+5}_{-5}	60^{+10}_{-5}	60^{+10}_{-5}	60^{+10}_{-5}	60^{+10}_{-5}	60^{+10}_{-5}
After Aging 70 ± 1 °C	Tensile Strength	Kgf/cm^2	80	120	70	90	140	150	120
	Ozone Crack	Hour	72	168	168	96	96	96	96
	EB	%	250	360	350	350	350	380	340

* After Aging 120^0 ± 1; 72 hrs

** After Aging 150^0 ± 1; 168 hrs

Cover Rubber Comparasion

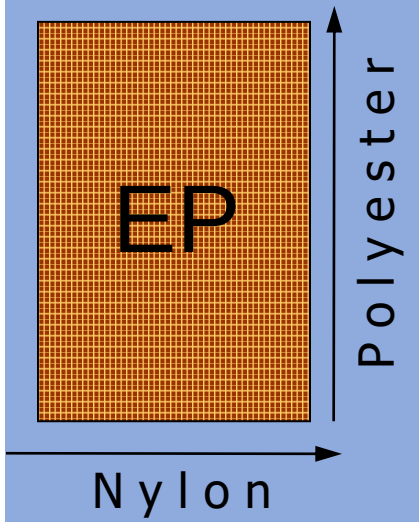
BANDO	SAR	GRADE - M	JIS – S	JIS – G	FR-300T
Tensile strength N/ mm³ (min)	14	25	18	14	18
Elongation at Break % (min)	400	450	450	400	450
Abrasion Resist mm³ (max)	90	120	200	250	150

DIN – 22102, DIN – 22131	DIN – W	DIN – X	DIN – Y	DIN – Z	DIN - K
Tensile strength N/ mm³ (min)	18	25	20	15	20
Elongation at Break % (min)	400	450	400	350	400
Abrasion Resist mm³ (max)	90	120	150	250	200

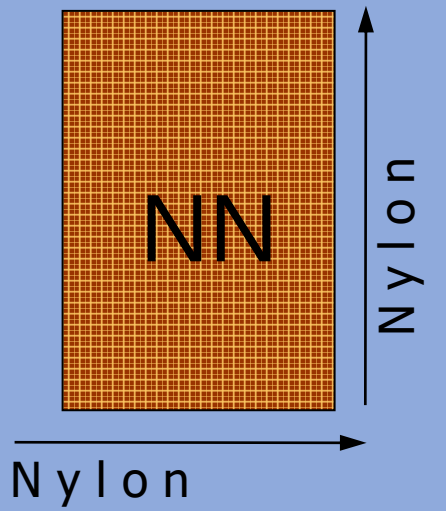
AS – 1332, AS – 1334	AS – A	AS – M	AS - N
Tensile strength N/ mm³ (min)	17	24	17
Elongation at Break % (min)	400	450	400
Abrasion Resist mm³ (max)	70	125	200

RMA CHAPTER 3	RMA – 1	RMA - 2
Tensile strength N/ mm³ (min)	25	18
Elongation at Break % (min)	450	400
Abrasion Resist mm³ (max)	120	200

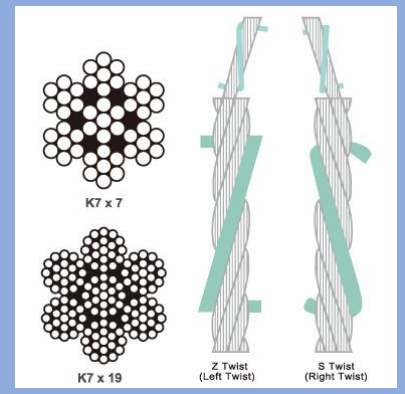
EP, NN, & ST Characteristics



Material
Polyester + Nylon
Elongation to Spare of Take Up
1.6 % center-center
Features
Short Take-up Travel
High Tension
High Speed

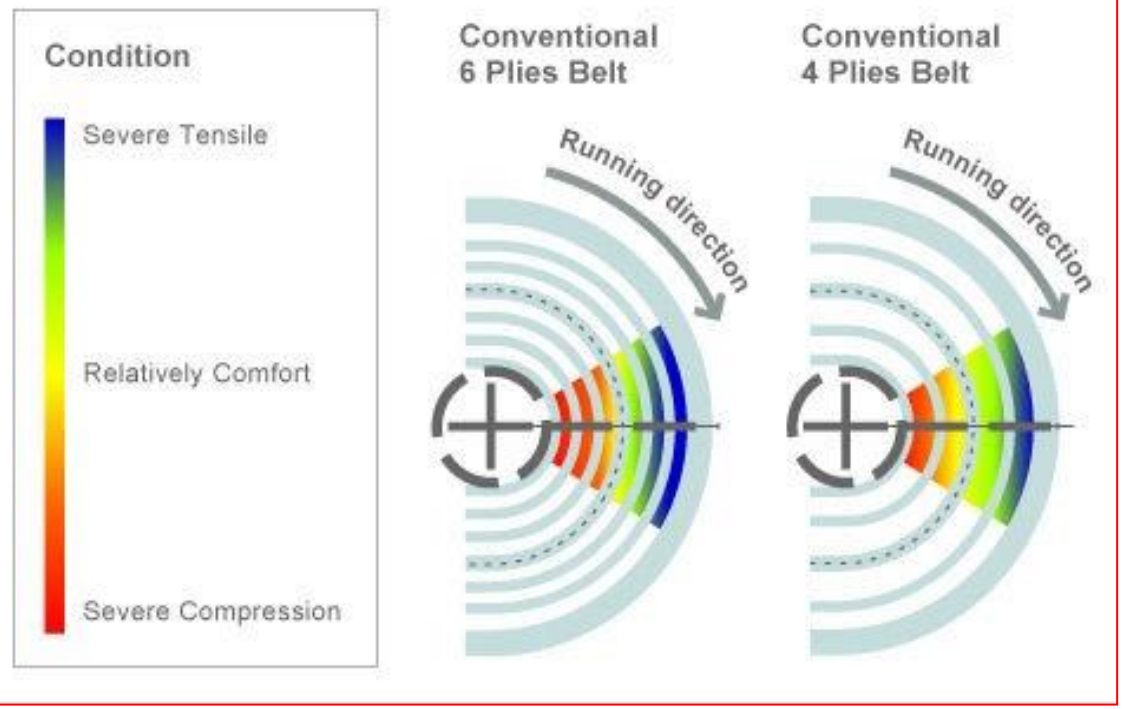


Material
Nylon + Nylon
Elongation to Spare of Take Up
2.4 % center-center
Features
High Impact Resistance
High Bending Resistance
High Speed



Steel Cord

Material
Steel Cord
Elongation to Spare of Take Up
0.3 % center-center
Features
High Impact Resistance
High Bending Resistance
High Speed
Long Span
Very High Tension



Minimum Required Pulley Diameter (mm) for Multiply conv.

Kind Of Canvas	Number of Plies				
	3	4	5	6	7
EP-100	300	400	550	650	750
EP-150	400	500	650	750	900
EP-200	400	550	700	800	900
EP-250	450	600	750	900	1050
EP-300	500	650	850	1000	1150
EP-350	650	850	1050	1250	1450
EP-400	650	850	1050	1250	1450

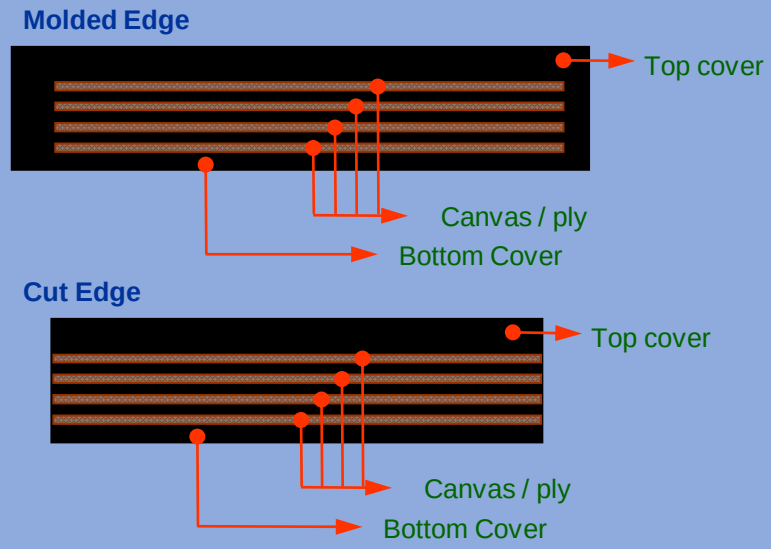
Note :
For Std. Diameter Lessply and Steelcord based on Calculation Please Contact Us

Constructions | Cover Rubber | Canvas

SUNCON

Application General Use(for all Kinds of Grade Cover rubber)

Construction



Range of production

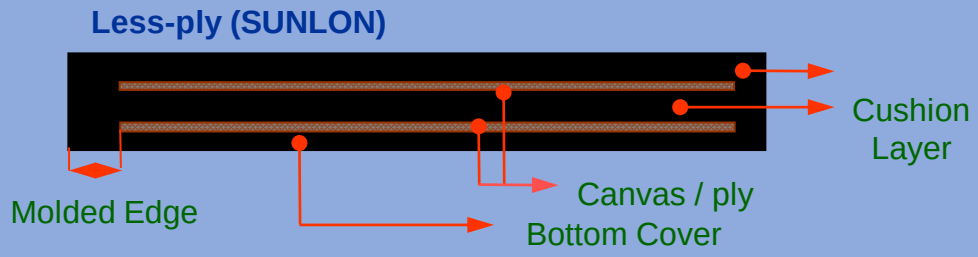
Belt Width:	100 ~ 2.200 mm
Tensile Strength:	100 ~ 2.800 kgf/cm

SUNLON

Application

SUNLON provides extensive specifications for various service conditions from conveyance of bulk materials like gravel, crushed stoned, and materials ones to larger lump materials.

Construction

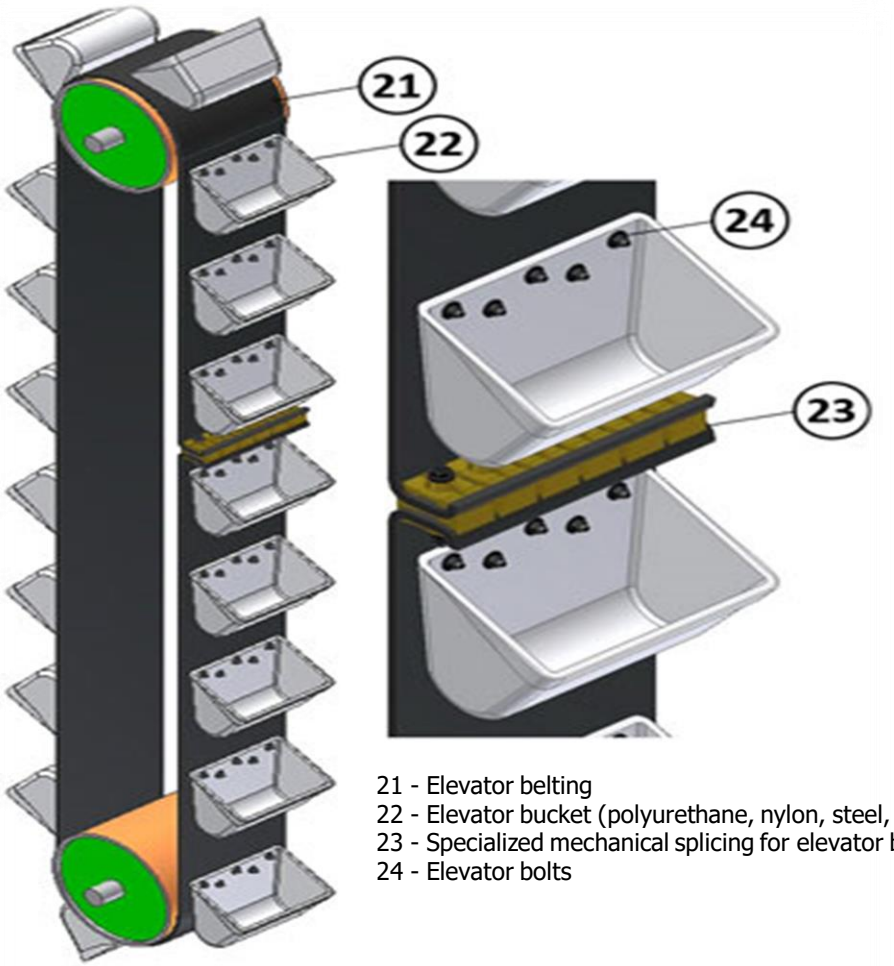


Features

Less ply structure and Exceptional Troughability
High Bending and Impact Resistance
Long life and economical service

Range of production

Belt Width:	200 ~ 2.200 mm
Tensile Strength:	100 ~ 1.800 kgf/cm

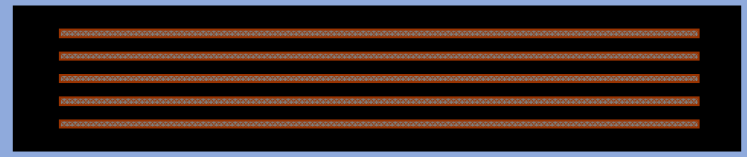


21 - Elevator belting
22 - Elevator bucket (polyurethane, nylon, steel, ductile iron)
23 - Specialized mechanical splicing for elevator belting
24 - Elevator bolts

BUCKET ELEVATOR

Application Bucket can be attached to vertically installed belt, which is suitable for conveying bulk materials such as grains and cement products.

Construction



Features
Low elongation
Bucket can firmly attached to the belt with bolts

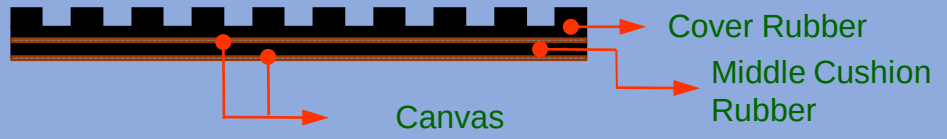
Range of production

Belt Width:	100 ~ 2.200 mm
Tensile Strength:	400 ~ 2.800 kgf/cm

ROUGH TOP

Application This conveyor belt has a loosely textured surface and is suitable for the conveyance of bags and packages up a medium incline with max 30°

Construction



Features Strong corrugated surface textured absorbs the impact and prevents conveyed object from spilling
Shock absorption reduces the possibility of damaging conveyed material

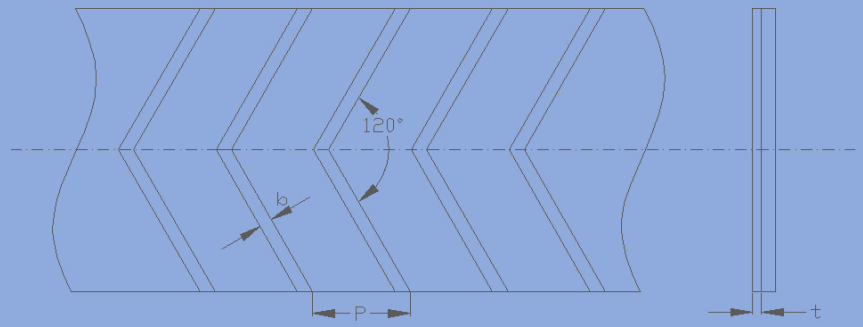
Range of production

Belt Width:	300 ~ 1.200 mm
Tensile Strength:	200 ~ 1.000 kgf/cm

V - CLEAT

Application This type of belt is suitable for conveying bulk material or bags of gravel or sand up to 30°

Construction



Range of production

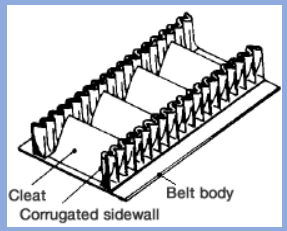
Belt Width:	300 ~ 1.200 mm
Tensile Strength:	100 ~ 1.000 kgf/cm
Cleat Height	: 5 mm
Cleat Width	: 12 mm
Cleat Angle	: 120°
Cleat Pitch	: 75 mm

PRODUCT

FLEXOWELL BELT

Application This conveyor belt has a CLEAT and SIDEWALL and is suitable for the conveyance of gravel or sand

Construction



Features Effective space and it's can handling material up to 90°

Range of production

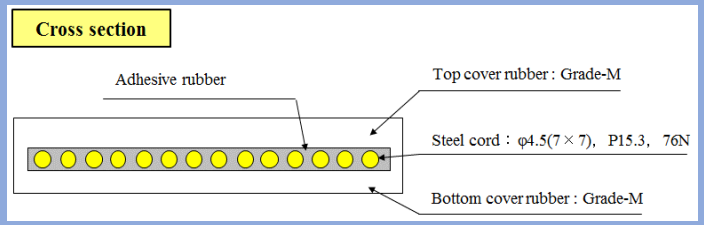
Belt Width:	300 ~ 2.200 mm
Tensile Strength:	200 ~ 1.000 kgf/cm

STEEL CORD CONVEYOR BELT

Application

For Long Span Conveyor belt and High tension

Construction

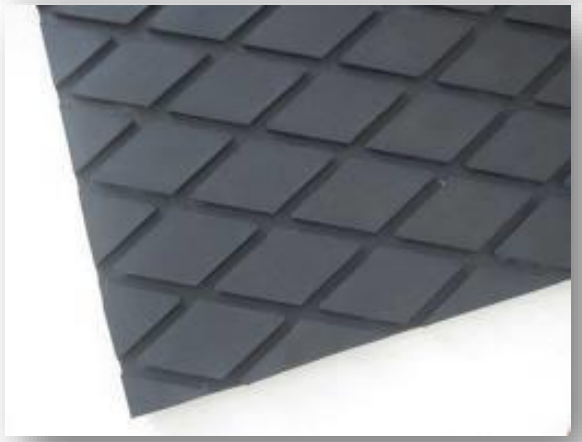


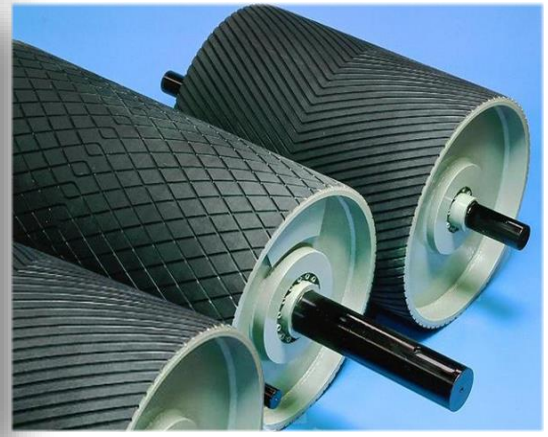
Features

Low elongation
Less maintenance and long life

Range of production

Belt Width:	800 ~ 1.800 mm
Tensile Strength:	ST-500 ~ ST-5000 kgf/cm
Number of Cord:	Max. 160
Cord Diameter:	2.0 ~ 13.5 mm





RUBBER SKIRT AND LAGGING

Application

Skirting Rubber to prevent spill out material
Rubber lagging at pulley surface to prevent slip

Construction

Full Rubber

Features

Solid rubber and have a hardness lower than surface belt
Shape by molding.

Range of production

Rubber Width:	100 ~ 2.200 mm
Rubber thickness:	5 ~ 25 mm
Abrasion:	max 400 mm^3
Hardness:	53 ± 5^0 JIS Type A

PRODUCT

SUNPAT-ECO COLD SPLICE

Application

This adhesive for vulcanizing rubber at Ambient temperature, used for the splicing and repair of conveyor belts

Construction

Shorter curing time
Wider applicable range
High Peeling Off Resistance
Increased operational efficiency

Range of application

Belt tension max 1.020 kgf/cm
Fabric tensile max 255 kgf/cm/ply
Cover rubber thickness 0 ~ 6.5 mm
Cover rubber type : General Use
OR210 – OR220
HC 510 – HC 513

HOT SPLICE

Application This method is used for the high tension line belt and longer service life

Material
Cover Stock
Edge Rubber
Tie Gum
Rubber Cement

Range of application
Belt tension > 1.020 kgf/cm
Cover rubber type : All type

SIZE CODE CONVEYOR BELT SPECIFICATIONS

Overall Belt Strength

900 x EP 400 / 4P x 5.0 x 1.5 x 200 ; GRADE M

A B C D E F G H

A = Belt width (mm)

B = Type of fabric (EP = Polyester-Nylon)

C = Tensile strength (kgf/cm)

D = Number of plies

One Ply Strength

900 x EP 100 x 4P x 5.0 x 1.5 x 200 ; GRADE M

A B C D E F G H

E = Top cover rubber thickness (mm)

F = Bottom cover rubber thickness (mm)

G = Belt length (meter)

H = Cover rubber grade

ABC SERVICE

ABC (AFTER BEFORE CONSULTING) SERVICE

Presentations product knowledge	Providing knowledge to prospective customers about type and accuracy of product selection So as to get the appropriate product
Suitable Specification	Visit to customer to collect data and information then doing calculations and give the suitable specification conveyor belt
Condition Monitoring Program	Regular visit to inspections Belt and given report about performance belt and lifetime calculation
Troubleshooting	Providing the best solutions about conveyor belt problem such as mistracking, spill out, carryback, splicing failure, etc.

ABC SERIVICE

BELT CONVEYOR REGULAR CHECK POINT

Date	:	Install date	
Customer	:	Contact Person	:
Location / Line	:	Phone	:
Spec / Size Belt / Grade	:		

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Hardness surface belt																						
Thickness Top Cover																						

NO.	PART	CONDITION			JUDGEMENT
1	**BODY BELT**	*Top Cover*	:		
		Bottom Cover	:		
		Side Gum	: Left :	Right :	
		Running	:		
2	**SPLICING**	*Step length*	:		
		Direction	:		
		Condition	:		
3	**LOADING**	*Spill*	:		
		Centering	:		
4	**PULLEY**	*Lagging*	: Head :	Tail :	
		Condition pulley	: Head :	Tail :	
5	**ROLLER**	*Carry*	:		
		Return	:		
			:		
6	**CHUTE**	*Height*	:		
		Choke or not	:		
		Centering Load	:		
7	**SKIRT RUBBER**	*Material*	:	Hardness :	
		Installation	:		
8	**SCRAPPER**	*Material*	:	Hardness :	
		Installation	:		
9	**BELT CLEANER**	*Material*	:	Hardness :	
		Installation	:		
10	**OTHERS**	:			

Judgment : A = Ok B = Repair C = Prepare to Replacement

BANDO	Illustration Line :	Check By	Inspector By

dwi@bandoindonesia.com

CONDITION MONITORING PROGRAM (CMP)

Inventory Procedure Check

The wrong storage will make the premature aging of the conveyor belt

Hardness Check

Elasticity of the belt depend on the hardness of the belt, if the hardness is higher that's mean The elasticity decrease.

Thickness Check

Cover rubber is the main part that determine of lifetime belt, so we must check the thickness remaining of the cover rubber to knowing and estimations the lifetime belt

Elongations Check

Elongations problem based on the different std. each of type belt, out of capacity, low specifications, counterweight to heavy, any roller jammed, trapped material, belt slip, etc.

STORAGE PROCEDURE

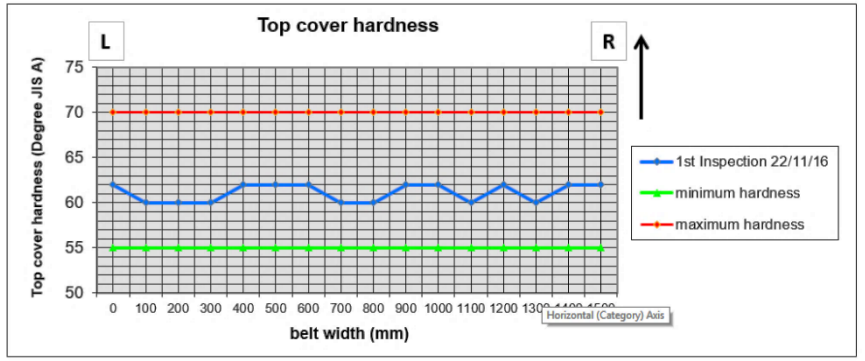
Temperature -10 ~ 40^{0}C	Aging problem the main cause is temperature
Avoid expose directly With oil, chemical, Fire, etc.	The material can happen belt problems such as swelling, damage, etc.
Avoid from sun direct exposure and rain	That can reduce the strength of the belt
Make sure the belt always standing and periodically rotating belt Positions	Straightness of the belt depend on this.
Periodic hardness Check	To aging monitoring

HARDNESS CHECK

Purpose To be aware of aging occurred

Apparatus Hardness tester JIS Type A or Shore A

Reporting



Remark

From chart explained that the hardness belt average is

61 ° JIS Type A

That's mean the elasticity belt still good and the belt still safe to use.

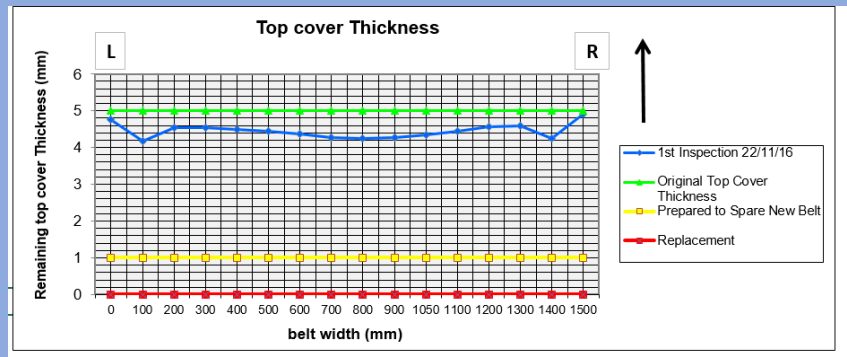
Standard Hardness Belt Grade M is 60 (-5, +10) ° JIS Type A

THICKNESS CHECK

Purpose To estimate the lifetime belt and abnormal abrasion problems

Apparatus Panametric, Caliper and bradawl

Reporting

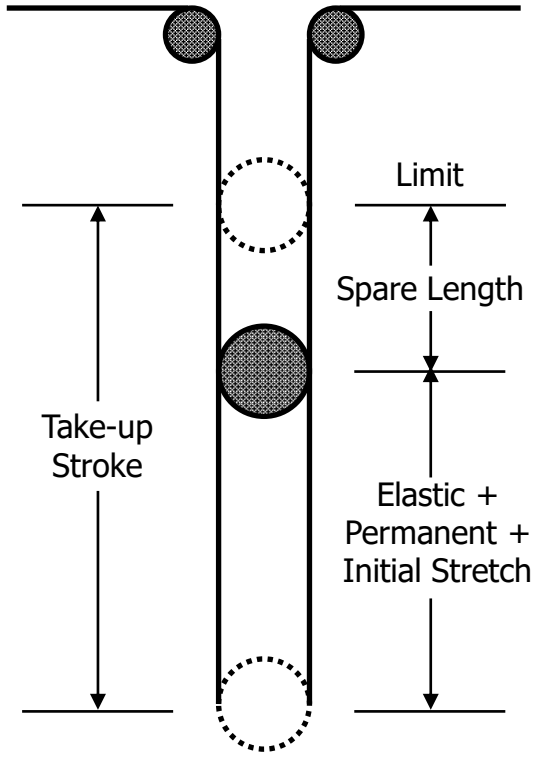


Remark

From the chart explained that's the average of thickness remaining is 4.45 mm that's mean already got abrasions 0.55 mm during use 4 month

Conclusion

The estimations of remaining lifetime belt is 28 month If the standard replacement belt is 1.0mm thickness



ELONGATIONS CHECK

Purpose To prevent the abnormal elongations

Apparatus Tape measure and marker

Reporting

Date	Start Position (mm)	Used (mm)	Spare (mm)	Std. Max. elongation (mm)
January 10, 2018	1500	0	4000	3200
March 10, 2018	1500	200	3800	3200

REMAINDER OF BELT LENGTH