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#SERVICE #MATERIAL PROCESSING #SURFACE PROTECTION #AUTOMOTIVE

# REMA TIP TOP CONVEYOR BELTS

Manufactured by DUNLOP Belting Products (Pty) Ltd. Lincoln Road · Benoni 1500 · South Africa

### SERVICE AND MAINTENANCE Custom Solutions across the globe

REMA TIP TOP has a broad product range of high quality and innovative steel cord, fabric and solid woven conveyor belts. But there is much more on offer – comprehensive services tailored to each individual need supplement and round off the suite of offerings, making REMA TIP TOP a reliable partner anywhere in the world for any and all questions regarding the operation of conveyor belt systems.

#### Know-how and experience

Whether project, maintenance and repair management – the global REMA TIP TOP sales and service network delivers tailored service solutions anywhere and anytime. From the initial planning of the project, capable choice of application and strict quality control through to downstream maintenance and repair tasks, you can rely on the know-how and experience of our specialists wherever you are.

#### Leaders in the conveyor belt sector

Due to REMA TIP TOP South Africa taking a stake in DUNLOP Belting Products South Africa, REMA TIP TOP has advanced to one of the leading suppliers of conveyor belts. The conveyor belts produced by DUNLOP Belting Products South Africa in accordance with the high REMA TIP TOP quality criteria puts the company in the position of being able to supply clients on any continent with conveyor belts that meet or even exceed international standards.

#### More capacity for successful service models

A further strong advantage of the partnership with DUNLOP Belting Products South Africa is that, due to the significant extension of its services capabilities, REMA TIP TOP can, now and in the future, implement its services concepts, already tried and trusted in the industry, even more consistently.



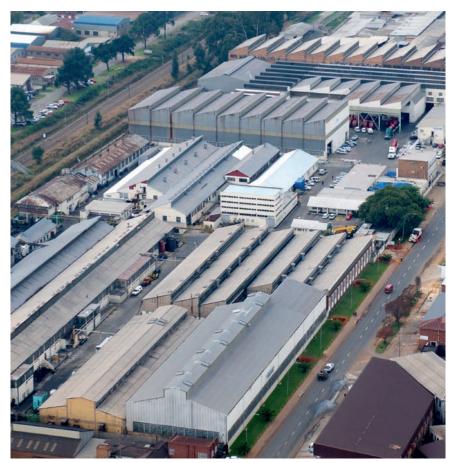
# DUNLOP BELTING PRODUCTS SOUTH AFRICA A strong partner

DUNLOP Belting Products South Africa manufactures innovative high-performance convevor belts that meet all normal international standards. The headquarters of the company are in the city of Benoni (Gauteng). A second manufacturing facility is located in Howick in the heart of the Kwa Zulu Natal. This tradition-rich location, already well-known for its rubber production by 1919, produces, as well as conveyor belts, rubber compounds for a wide variety of industrial rubber goods. The products of DUNLOP Belting Products South Africa are extremely well-suited for heavy mining and other industrial conditions

# The company produces the following conveyor belts for REMA TIP TOP:

- EP fabric conveyor belts
- Steel cord conveyor belts
- Solid Woven conveyor belts

All conveyor belts meet the high quality requirements of REMA TIP TOP and possess a carcass protected by a highly wear-resistant covering. The choice of the conveyor belt construction best suited for a particular application depends on the grading of the material, the operating environment, the length of the conveyor belt and the maximum belt tension.



Benoni – headquarters and manufacturing facility.



Howick - manufacturing facility with more than 90 years of tradition.

## STEEL CORD CONVEYOR BELTS High quality and extremely durable

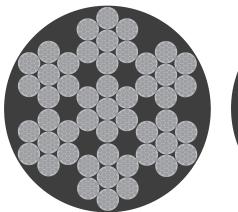
REMA TIP TOP steel cord conveyor belts are manufactured according to international standards, meet applicable tolerances and can be delivered with additional fabric breakers as protection against slitting on the transport side of the belt if required. The steel cords are held at a pre-defined tension during vulcanization in Simpelkamp presses. The steel cord conveyor belts manufactured in this way are excellently suited for use under heavy-duty conditions.

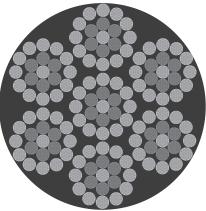
#### The details:

- Conforming to the German DIN 22131 norm in W, X, Y, K qualities
- Conforming to the international DIN EN ISO 15236 norm
- Conforming to the South African SANS 1366 norm in M, N, F qualities
- Steel cords are hot dip galvanized
- Differing cord diameters in the normal 7x7 and 7x19 mm constructions
- Belt widths of up to 2 400 mm
- For extreme tensile strengths of up to 6 300 kN/m



Steel cord construction





Cross-section of steel cord construction, left: 7x7, right: 7x19

# STEEL CORD CONVEYOR BELTS Construction of the Steel Cord Conveyor Belt

Belt Strength	Tolerance	ST 1000	ST 1250	ST 1600	ST 2000	ST 2500	ST 3150	ST 3500	ST 4000	ST 4500	ST 5000	ST 5400
		Number of steel cords										
Often-used coverings		7+5	9+6	10+6	14+6	14+8	14+8 16+8	14+8	15+8	16+10	16+10	16+10
Cord diameter in mm Max. acc. to DIN		3,6 4,1	4,1 4,9	4,8 5,6	5,4 5,6	6,7 7,2	7,6 8,1	8,2 8,6	8,8 8,9	9,6 9,7	10,7 10,9	11,2 11,3
Cord strands acc. to DIN in mm	± 1,5	12 13	14 13,5	15 14	12 13	15 15	15 15	15 15	15 15	16 16	17 18	17
Cord construction		7x7	7x7	7x7	7x7	7x19	7x19	7x19	7x19	7x19	7x19	7x19
Belt width in mm						•						•
800	± 8	64 56	55 55	50 53	64 56							
1000	± 10	81 71	69 68	64 66	81 71	64 59	64 58	64 55	64 60	59 53	55 53	55 53
1200	± 10	97 87	84 82	77 79	97 87	77 70	77 69	77	77	71 63	66	66
1400	± 12	114 102	98 95	90 92	114 102	90 82	90 81	90 78	90 83	84 74	79 73	78 73
1600	± 12	131 112	112 109	104 105	131 119	104 104	104 92	104 92	104 95	96 84	90 84	90
1800	± 14	147 133	127 122	117 118	147 133	117 105	117 104	117 103	117 107	109 95	102 94	102 94
2000	± 14	164 152	141 136	130 131	164 131	130 117	130 116	130 116	130 119	121 107	113 105	113 105
2200	± 15	181	155 149	144 144	181 166	144 130	144 129	144 129	144 131	134 116	125 105	125 105
2400	± 15	197 182	169 163	157 157		157 142	157 142	157 142	157 143	146 126	137 126	137 126

# WEAR-RESISTANT AND VERSATILE EP fabric conveyor belts

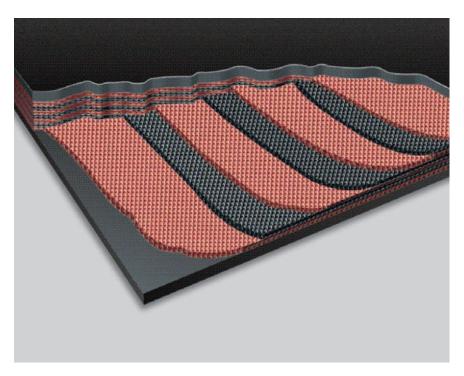
#### REMA TIP TOP

#### EP fabric conveyor belts conforming to:

- the international DIN EN ISO 14980 norm
- South African standard SANS 1173 and
- German standard DIN 22102 in qualities W, X, Y and
- DIN 22103 in quality K

These consist of two or more woven polyester-polyamide plies, separated from each other by rubber plies. Their surface consists of a highly wearresistant rubber covering. REMA TIP TOP EP fabric conveyor belts are suitable for the transport of a wide variety of materials at standard and also heavy loads, for example:

- The transport of sand, gravel or cement
- in the steel industry, harbors or quarries
- in many other industrial sectors



Fabric construction

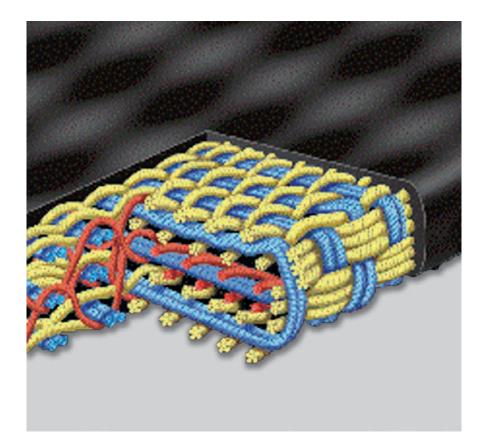
EP fabric conveyor belts	Туре	No. of fabric plies	500	650	800	1000	1200	1400	1600	1800	2000
	EP 400/3	3 EP 125	4:2	4:2 6:2	4:2 6:2	4:2 6:2	4:2	4:2	4:2		
	EP 500/3	3 EP 160		5:2	5:2	5:2	5:2				
	EP 500/4	4 EP 125		5:2	5:2	5:2	5:2				
	EP 630/4	4 EP 160	•		6:2 8:3	6:2 8:3	6:2 8:3	6:2 8:3			
	EP 800/3	3 EP 250				6:2 8:3	6:2 8:3	6:2 8:3			
	EP 800/4	4 EP 200			6:2 8:3	6:2 8:3	6:2 8:3	6:2 8:3	6:2 8:3	6:2 8:3	
	EP 1000/4	4 EP 250				8:3	8:3	8:3	8:3		
	EP 1250/4	4 EP 315									
	EP 1250/5	5 EP 250									
On request, non-standard products can be	EP 1600/5	5 EP 315									
made available.	EP 2000/5	5 EP 400									

## SOLID WOVEN / PVC CONVEYOR BELTS «Extra-strong» fabric conveyor belt

The Solid Woven conveyor belt was developed more than 40 years ago, primarily for underground operations, and in particular coal mining.

It is extraordinarily tear- and wearresistant as well as being resistant to humidity and is therefore the ideal belt for use under the most extreme conditions.

Since it is ideal for mechanical connecting elements (clamps) it is often even preferred to strengthened steel-core conveyor belts.



Solid woven construction

#### Properties and advantages:

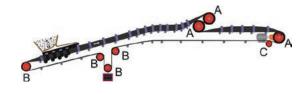
- This special type of weave of the polyester sheath gives it special anti-tearing properties.
  This permits mechanical connecting elements such as clamps to be used.
- The polyester fibers used are ideal for PVC impregnation. This perfect combination gives the belt surface outstanding abrasion resistance.
- The very hard-wearing components of the polyester surface limit the expansion of the conveyor belt.
- Thanks to the unique manufacturing process, the woven fabric belt can be impregnated with PVC thus lengthening its life.
- Due to its special weave, the Solid Woven is extraordinarily tear-resistant and ideal for attaching scoops for use in a rising conveyor belt.
- There are many coatings available: Chemicals-proof, oil and grease resistant or highly wear-resistant.
- File-resistant according to ISO norm 340.
- Antistatic according to ISO norm 284.

- Our Solid Woven conveyor belt is SABS-certified (South African Bureau of Standards; TÜV in Europe) Due to the unique manufacturing process, we have created a very smooth surface structure. This reduces operating noise and makes cleaning with the scraper easier.
- Due to the chemical reaction between the impregnation and the nitrile rubber coating, the various layers adhere very well to one another.
- Solid Woven conveyor belts are suitable for transport of materials in a wide range of applications and under the most difficult conditions, for example in cement factories, stone and sand quarries, in the steel industry, in harbors, thermal power stations, agriculture and in sugar refineries as well as in many other industrial areas.
- These conveyor belts conform to the strictest safety standards and are still used today in underground operations in South Africa.

## RECOMMENDED MINIMUM PULLEY DIAMETER

Belt class Pulley type	Multi-ply fabric No. of plies	construction	Steel cord construction	Solid woven construction			
	2 • • • • •	2	3	4	5		2 • • • • •
200	A/B/C	200/160/125					
250	A/B/C	200/160/125					
315	A/B/C	250/200/160	400/315/250				400/315/250
400	A/B/C	315/250/200	400/315/250	500/400/315			400/315/250
500	A/B/C	315/250/200	500/400/315	500/400/315	630/500/400	500/400/315	500/400/315
630	A/B/C	400/315/250	500/400/315	500/400/315	800/630/500	500/400/315	500/400/315
800	A/B/C	500/400/315	500/400/315	630/500/400	800/630/500	500/400/315	500/400/315
1000	A/B/C	500/400/315	630/500/400	800/630/500	1000/800/630	500/400/315	630/500/40
1250	A/B/C		800/630/500	1000/800/630	1000/800/630	630/500/400	800/630/50
1400	A/B/C		800/630/500	1000/800/630	1000/800/630	630/500/400	800/630/50
1600	A/B/C		800/630/500	1000/800/630	1250/1000/800	800/630/500	1000/800/63
2000	A/B/C				1250/1000/800	800/630/500	1000/800/63
2500	A/B/C				1400/1250/1000	1000/800/630	
3150	A/B/C					1250/1000/800	
4000	A/B/C					1250/1000/800	
5000	A/B/C					1400/1250/1000	
6300	A/B/C					1400/1250/1000	

**Pulley types** A: Drive Pulley B: Tail Pulley C: Return Idler





## CARCASS THICKNESS AND MASS

Carcass thickness (mm)

#### Add the thickness of the covers to get the total belt thickness.

Belt class	Multi-ply fabric cor No. of plies	struction	Solid woven carcass	Steel cord construction		
	2	3	4	5		
200	1,8					
250	1,8					
315	2,0	3,0			4,9	
400	2,4	3,0	4,2			
500	2,8	3,8	4,2	5,4	5,9	3,2
630	3,6	3,9	4,6	5,9	6,2	3,2
800	4,0	4,5	5,4	6,9	6,9	3,7
1000	4,8	5,8	6,2	7,9	7,4	3,7
1250		6,4	8,0	9,2	8,4	3,7
1400			8,2	9,9	9,1	
1600			8,8	11,2	9,9	5,4
2000			10,0	11,2	12,4	5,4
2500						7,0
3150						8,0
4000						9,0
5000						11,0
6300						12,0

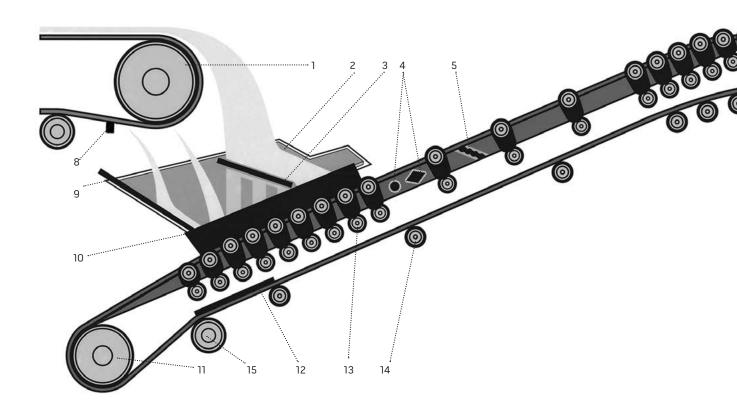
#### Mass of belt carcass (kg/m<sup>2</sup>)

Belt class	Multi-ply fabric const No. of plies	ruction	Solid woven carcass	Steel cord construction		
	2	3	4	5		
200	2,5					
250	2,6					
315	2,7	4,1			9,0	
400	3,0	4,2	5,7		9,4	
500	3,2	4,4	5,9	7,2	9,7	7,5
630	3,8	4,8	6,1	7,9	10,5	7,7
800	4,2	5,1	6,7	8,6	11,0	8,2
1000	4,7	6,2	7,1	9,1	11,7	9,0
1250		6,8	8,6	10,3	13,0	9,7
1400			8,9	11,0	13,9	11,0
1600			9,4	12,0	15,0	13,4
2000			10,3	12,9	18,0	15,3
2500						18,7
3150						22,4
4000						28,4
5000						35,1
6300						38,7

All information is given to the best of our knowledge. All specifications are to be considered non-binding information. Any claim for damages of any kind is excluded.

### OUR SERVICE AROUND THE CONVEYOR

Installed properly and in the right place, REMA TIP TOP high quality products are the solution to wear, corrosion, noise and caking problems on many parts of the conveyor. The general operating performance of the plant is improved considerably. The belt and plant are protected. The service life, availability and profitability of the plant are increased.



#### 1. Driving pulley

REMAGRIP rubber friction covers ensure safe belt traction: these can be supplied with a diamond-shaped profile, with a «knobbly» profile and ceramic inserts, or they can be grooved on site. REMAGRIP rubber friction covers are safe and effective, even in wet or extremely muddy operating conditions.

# 2. Slide area with impact and / or abrasion

wear REMALINE anti-wear rubber sheets, or REMALOX AL2O3 anti-wear ceramic lining mainly in case of sliding wear.

#### 3. Feeding area

Special rubber components, e.g. KG bars for pre-sorting the material conveyed: fine materials before coarse materials.

#### 4. Repairs to conveyor belts

Quick and long-lasting repairs with REMA TIP TOP repair products and processes.

#### 5. Conveyor belt splicing REMA TIP TOP

high-quality materials for cold, warm and hot vulcanisation, as well as REMACLIP systems for temporary splices.

#### 6. Counter-roller for belt cleaning brush

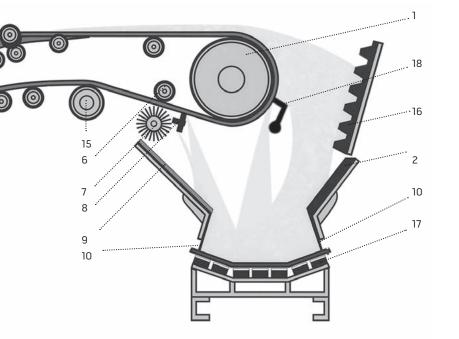
Elastic REMASLEEVE VSB rubber sleeves protect against wear and caking; in addition, they ensure even belt tracking.

# 7. Rotary cleaning systems for conveyor belts

REMACLEAN drum motor brush TMB, cleated conveyor belt cleaning brush SGB for steep belt conveyor with bias cleats, belt cleaning brush GRB or belt cleaning worm GRS for effective fine cleaning.

#### 8. Cleaning systems

REMACLEAN T-bar scraper KWA, polyurethane scraper PUR, ceramic scraper C, metal scraper M, hard metal blade scarper HML or belt cleaning systems HM-U1 and HM-U2 for effective cleaning according to the material conveyed.



#### Our range of services:

- Delivery, installation, splicing and repair of conveyor belts
- Technical assistance and consulting on site to minimise noise, wear, corrosion or caking problems
- ➤ Maintenance service, and 24-hour emergency service

In addition, we offer you a complete range of high-quality tools, vulcanising presses and equipment, together with the appropriate bonding and fastener systems to enable you to carry out rubber lining, splicing and repairs quickly and easily.

#### 9. Chute

REMASLIDE sheets (polyethylenerubber composite or REMATHAN (polyurethane-rubber composite) or REMALINE 90 against wear and caking. In case of fine non-abrasive material lining with REMAFLON (PTFE-surface) or REMALEN (UHMW-PE).

#### 10. Skirting

REMASKIRT highly elastic skirting rubber prevents loss of material.

#### 11. Tail and tension pulleys

REMALINE 70 covers increase lifetime of belt and pulleys.

#### 12. Plough scraper

REMACLEAN 60, REMACLEAN 70 scraper rubber, or combi scraper rubber REMALINE CAB.

#### 13. Carrying idlers in the feeding area

REMASLEEVE VSB soft rubber sleeves protect against wear, and provide impact reduction.

#### 14. Return idlers

REMASLEEVE KSB and VSB soft rubber sleeves protect against wear, corrosion and caking.

# 15. Snub pulleys, inflexion or pressure rollers

REMALINE highly elastic rubber covers against caking, wear and corrosion.

#### 16. Impact wall

Serrated profile plates screwed on, bonded or mounted on a flexible mat as an oscillating apron against wear and for reducing noise.

#### 17. Loading terminal

REMASLIDE impact bars with sliding surfaces made of polyethylene designed to prevent the belt from being punctured.

#### 18. Head scraper systems

The REMACLEAN HM-F2 belt scraper enables highly efficient belt cleaning on the drum.

Your local contact



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