YOU CAN RELY ON HIGH-PERFORMANCE LOGISTICS & SERVICES

With a main logistics platform in Lille (France), offices and storage facilities in Poland, U.S.A and Australia we can provide our clients with :

- A wide range of belt specifications in stock
- Cutting services to customise belts to width and length
- Hole punching service for elevator belts

• A « one stop shop » for conveyor belt related products such as splice kits, glues, mechanical fasteners, idlers, loading stations, belt cleaners, vulcanising presses...

• Buckets for elevator belts together with related fastening and installation equipement (eg:bolts, clips...)

Short delivery times

DEPREUX is part of the COBRA GROUP.

For further information on DEPREUX or the COBRA GROUP ACTIVITIES please contact your closest COBRA subsidiary or your head office.













8 Boswell Drive • Bristol TN 37620 www.cobraamerica.com Toll Free: (866) 768-9700

MSHA Approved UNDERGROUND CONVEYOR BELT

FABRIC CARCASE

Firewall / Firewall II Multiply with rubber covers

Firemaster - PVG Solid-woven with rubber covers

Fireshield Straight-warp with rubber covers

STEEL CORD

- AFED TEL

TOTA

Firemaster - ST Steel cord with rubber covers





MSHA Approved Conveyor Belt for Underground Applications complying with European standard EN 14973

Preamble	This brochure describes the heavy-duty DEPREUX belts, to be used underground, that are antistatic and fire-resistant and that comply with the european standard, EN 14973.
	This brochure describes the heavy duty DEPREUX conveyor belts for underground applications. They are fire resistant and comply with MSHA Part 14 standards.
	Product Range: 150 PIW to 3200 PIW with a maximum width of 72"
	Standard conveyor belting is a highly flammable product, as it is composed of chemical products derived from petrochemicals. Special agents are added in the dipping solution of the fabrics, the impregnation paste, and in the different rubber components that make up a safety belt. This process increases the fire resistance and decreases the friction factor of the metal elements. These agents act in synergy at different high temperature levels. These added fire resistant agents will generally degrade the mechanical properties of the covers.
	The DEPREUX brand has more than 100 years of experience in designing safety belts that comply with the various world safety standards. While complying with the standards, DEPREUX has optimized the mechanical parameters for the different conveying applications which will ensure the belt longevity your company needs.
Applications	The conveyor belts described in this brochure are to be used for conveying material inunderground mines or tunneling applications. *A risk analysis should be done by the user in order to assess the extent of the following hazards:
	 i. Limited means of escape ii. Potentially flammable environment iii. Presence of flammable dust or transport of flammable material iv. Presence of additional duel combustion elements such as wood, plastics, etc.
Range	DEPREUX offers different types of constructions and different types of covers as indicated herebelow :
	Firewall™ - Firewall II™ Traditional « multiply » construction , composed by several fabric plies, rubber interplies and rubber top and bottom covers.
	Firemaster [™] - PVG These belts have a single ply textile carcase and rubber or PVC covers. This solid woven offers good impact resistance, and a long life expectancy.
	Fireshield [™] DX-FLEXAMID is textile « straight-warp » belt, the warp is made of thick aramid twisted yarns, protected on two sides by a textile polyamide weft. DXFLEXAMID will offer better impact resistance and tear resistance than steel-cord, and could be used in case of emergency with mechanical fasteners.
	Firemaster - ST [™] Steel-cord carcase. This belt is composed of steel-cords extending along the overall length of the belt. As a standard, the belt is proposed with no weft. However , as indicated in this drawing, a steel breaker (or a textile breaker) can be added in the top cover to offer some resistance to tearing.

	Firewa Plied Belt	all™ - Firewa ts for Underground	all II ™ d Use		DEPREUX								
Application	Both Firewall and Fire various underground 14 fire resistance is a	ewall II are belts used for the tr mining and quarrying applicati requirement.	ansportation of bu ons, or any applica	lk or other mate ation in which M	erial in ISHA Part								
Tensile strength	150 PIW to 1400 PIW us	50 PIW to 1400 PIW using 2 to 5 plies.											
Width and Length	Standard 60" maximum are supplied in standar Please contact us for more	n. DEPREUX can supply wider be d 656 ft. rolls, but can be offerec e information.	Its if required. The v I in as much as 1300	vidth tolerance is) ft. rolls if require	s +/- 1%. Belts ed.								
Belt structure	The Fireshiel fabrics, from which enable	d [™] and Firewall II [™] belt 2-5 plies. Each ply is s s the belt to absorb sh	carcase is m separated by a locks.	ade up of la a rubber inte	yered erlayer								
				man direction	ft direction								
Main mechanical properties: - Belt stretch - Adhesion	The fabric of each ply is with bigger warp and w longitudinal tearing. - At 10% of belt nomina around 0.5% for standar - The fabrics are dipped maximum adhesion ber but not so adhesive tha	made by using a standard 1/1 b reft yarns. This product provides I tensile strength: 1.5% max. Per rd carcase d with RFL solution. The RFL ar tween the plies. This needs to be t it would hamper the operatior	and or by using a C a greater impact re rmanent stretch:arc ad rubber composit e adhesive high enc n of splicing the belt	rows Foot Weave sistance and a les ound 0.7% and el cion is designed ough to ensure a c. Adhesion: > 4N	sser risk of astic stretch: to ensure longlife expecta /mm.								
Belt joining	DEPREUX belts can be jo - the «hot» vulcanized r and a field press, - the «cold» method: usi - with mechanical faster belt with fasteners read	pined by any of the following m method, using DEPREUX or othe ing special glues, mers. In this case, DEPREUX can so y for use at each end.	ethods: er jointing materials upply the required										
PRODUCT	OPERATING TEMPERATURE	TYPE OF COVER	ABRASIVE RESISTANCE (mm3)	TENSILE STRENGHT (Mpa)	ELONGATIC AT BREAK (%)								
FIREWALL™	0° to 50°	Chloroprene Rubber	<120	>18	>400								
FIREWALL II™	0° to 50°	Nitrile Rubber / NBR	<180	>14	>380								













	Fireshield™ Underground straight-warp belt		Firemaste Solid Woven Ca covers for under
Application	The Fireshield [™] belt has excellent properties of resistance to tearing and resistance to heavy impacts. Because the carcase is thin, Fireshield [™] can also be used with smaller pulley diameters than textile plied or steel-cord belts. Ability of Fireshield [™] to trough is much better than a plied conveyor belt. Fireshield [™] can also be joined with mechanical fasteners. Fireshield [™] is therefore utilised on heavy duty conveyors where resistance to the effects of heavy impacts and resistance to tearing are important characteristics, typically seen in quarrying, open cast mining and steel industries or in applications where heavy-duty and yet narrow belts are required, such as in tunnelling.	Application	DEPREUX Firemaster-PVG belts are are characterized by severe operatin of impact damage, longitudinal tearin Firemaster-PVG belts are also used will be better for those applications to corrosion resistance, the lower power mechanical fastener holding.
Construction	composed of one or two plies , each ply is with straight warp, protected on both top and bottom sides by weft lines in textile as shown in the drawing below cons .The straight warp is composed of thick twisted	Tensile strength	This belt ranges from a standard of 150
	(textile cables) in polyester . This warp is inserted between two planes of weft textile made of thick twisted in polyamide . The warp and the weft are connected by a small fine wire which ensures the maintenance of textile . The carcass frame thus constructed is adhered RFL and may be coated of different types of rubber cover, anti- abrasive (X,Y,SH, etc) and other.	Belt structure	The Depreux belts are made of a textile of The carcass is then protected with a prospecial characteristics insuring long life Thicknesses and weights for different s
	• for a given ply, for average tensile strength greater than 500 PIW, it is necessary to have two levels of warp, and therefore three levels of weft protecting the warp and the binding of the assembly.		
	• For high resistance, it is preferable to use 2 plies straight- warp , separated by an interply in rubber to facilitate splicing .	properties:	stretching of the belt, and of polya
	• To increase fastening resistance, tear and impact, the Fireshield [™] belt can be offered in a version with carcass reinforced in weft: Fireshield [™] RT	- Belt stretch - Fasteners	- At 10% of nominal belt tensile streng stretch : 0.4% to 0.7%.
Tensile strength	Fireshield ranges from standards of 150 PIW in 1 Ply to 1000 PIW in 2 Ply. If greater strength is required, please contact us for more information.	- Mechanical resistance	- The «solid-woven» carcase is covered wit which make the belt exceptionally resi
Belt joining	Fireshield [™] conveyor belts are normally jointed by hot vulcanising (ref. to DEPREUX splicing procedure). It is also possible to mechanically fasten Fireshield [™] belts but you should consult with our technical representative for the appropriate type of fastener.		 to longitudinal tearing, to carcase wear in case of substantial As the carcase is highly compact, the th
		Advantages for the overall system	A major advantage over ply belts is that The advantage over steel-cord belts is t Firemaster-PVG belts usually need les
		Belt joining	Depreux belts can be joined by any of t



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2 PARA	The states
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stored at high temperatures.

er™ -PVG arcase, PVC/Rubber blended erground use.



are used when a long service life is sought. It is for use inapplications which ing conditions such as high speed systems, presence of large material, risk ring, or edge wear.

ed for long distances and/or when the system faces a steep slope. This belt s than a standard plied or steel cord belt because of its high mechanical and wer requirement, ease of installation and maintenance, and its superior

150 PIW to 2200 PIW.

e «solid-woven» carcase, impregnated with a special PVC proprietary DEPREUX cover providing the user with life and superior performance.



nt specifications, please contact us.

e «solid-woven» textile is made of polyester (E) yarns in the warp direction to minimize the yamide (P) yarn in the weft direction for good belt flexibility. ength: 1 % maximum Elastic stretch: 0.5% to 0.7% for standard carcase Permanent

y - from 50% to 90% - which makes this joining technique increasingly popular. with cotton pile yarns laid in the warp direction, and special edge reinforcements esistant:

ial damage in the rubber cover. e thickness of the outer rubber covers can be reduced.

hat Firemaster-PVG belts need smaller drum diameters.

less power to function.

of the following methods:

the «hot» vulcanized Finger splicing method, using DEPREUX or other jointing materials and a field press, - the «cold» Finger splicing method: using special glues,

- with mechanical fasteners. In this case, DEPREUX can supply the required length with fasteners ready for use at each end. Please note that a small increase in belt length is required to make the splice. Also, in the case of «hot» jointing, the splicing materials used have an effective shelf life of less than 6 months and should not be



Firemaster™ PVG can be spliced into both plied and solid woven belting. Splicing procedures are available upon request.





1800

2000

2200

2400

Firemaster[™] -ST MSHA Approved Steel Cord Belt

Appl	ication		Steel co	ord belts	s are pr	eferred	l to text	tile plie	d or so	lid-wo	ven cor	nveyor	belts ir	n the fo	llowing	g situat	ions:			
			- when are suit or steel	the requent the requent to contract the second s second second se	uired te onveyo or tunn	ensile st rs typic elling p	trength ally fou proiects	n is higł Ind in l	n and tl ong ov	he con erland	veyor is convey	s narrov /or syst	w. The tems, s	superic uch as t	or troug hose b	ihing c etwee	apabili n a min	ties of s ne and a	steel co a powe	ord belt er plant
			- when	a verv lo	ow elor	ngation	of the	belt is	reauire	۰d.										
			- when	the life	evnect	ancy fo	r the h	olt is th	e nrim	e obier	tive									
			when	looding	expection and the		t condi	tions		e objec										
			- when	loauing	and th	anspor	t condi	lions a	re com	patible										
Tens	ile strength		The bel	t range	s from a	a stand	ard ST6	530 N/r	nm to a	a ST54(00 N/m	m								
Prod	uct description		A Firem	aster-S	Tconve	evor be	lt is cor	npose	d of:											
			- Steel (ables p	laced a	at a con	istant p	oitch ac	ross th	e widtł	n of the	belt.								
			- A spec	ial rubb	per-bor	ndina la	ver to	the cab	oles and	d to the	e rubbe	r covei	'S.							
			- Top ar	nd hotte	om rub	her cov	iers													
		- Top and bottom rubber covers. The manufacture of a steel cord belt requires a heavy-duty steel cord production line together with an experienced											nced							
			knowle	daeable	e produ	uction t	eam. D	EPREU	X Firen	naster-	ST belt	s are th	e resul	t of 80 v	vears e	xperier	nce.	лрепе	iccu,	
		_		5											, 					
Stee	l cable construc	tion	Firemas	ter-ST u	ıtilizes t	he ope	n type	steel co	ord cor	structi	on that	allows	the ru	ober to	penetr	ate ful	y into t	the cab	le, whic	ch is a
			guarant	tee of th	ne long	evity fo	or the b	elt. Thi	s techr	ique o	ptimise	es the a	dhesio	n and r	minimi	ses cor	rosion	to the s	steel co	rds in
***	.		the case	e of dan	nage to	o the be	ert.													
14			Open st	eel cab	les also	offer c	haract	eristics	that er	hance	the im	pact al	osorpti	on capa	ability o	of the b	elt and	d make	s for ea	sy
~~#	• ** ***)****	transitio	on betw	/een th	e troug	inea po	sition	of the r		riat and	I VICE V	ersa.							
			The ste	el cable	s are al	so prot	ected a	against	corros	ion wit	h speci	al zinc	plating							
Diffe	rent honding la	ver	The hor	ndina la	iver is a	kev na	ort of st	eel-cor	d helt	lt has t	o he foi	mulate	ed to h	ave.						
and	cover combinat	ions		i ang ia		incy pu					0 00 10	malac								
			- Good adhesion with the cable																	
			- Good	adhesic	on with	the cal	oles, ev	en afte	r agein	a										
			- Good	adhesio	on with	the cat	oles eve	en aftei	r the dy	/namic	stresse	s of the	e conve	eyor op	eratior	n				
	Туре	Unité	ST 500	ST 630	ST 800	ST 1000	ST 1250	ST 1400	ST 1600	ST 1800	ST 2000	ST 2250	ST 2500	ST 2800	ST 3150	ST 3500	ST 4000	ST 4500	ST 5000	ST 5400
	Tensile	N/mn	n 500	630	800	1000	1250	1400	1600	1800	2000	2250	2500	2800	3150	3500	4000	4500	5000	5400
	Max. steel cord diameter	mm	3,0	3,0	3,7	4,2	4,9	5,0	5,6	5,6	5,6	5,6	7,2	7,2	8,1	8,6	8,9	9,7	10,9	11,3
	Min cord tensile	KN	7,6	7,6	10,3	12,9	18,4	20,6	26,2	25,5	25,5	26,2	39,7	39,7	50,0	55,5	63,5	75,0	90,3	96,0
	Space between	mm	14.0	11.0	12.0	12.0	14.0	14.0	15.0	13.5	12.0	11.0	15.0	13.5	15.0	15.0	15.0	16.0	17.0	17.0
	cords (±1,5mm)		1 1/5	,	12,0	12,0	,	,	13,0	13/3	12,0	, 0	13,0	. 3,5	1370	.5,6	13,0	10,0	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1770
	Min Thickness	mm	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	4,0	5,0	5,0	5,5	6,0	6,5	7,0	7,5	8,0
	cover																			
	Belt Width	tolerand (mm	ce)								Cord	numbe	rs							
	600	+10/-	5 33	42	39	39	34	34	31	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	650	+10/-2	7 44	54	51	51	45	45	41	46	52	56	41	46	41	41	41	39	36	N/A
	1000	+10/-8	5 54 68	68 84	64 80	63 80	55 68	55 68	60	57	64 80	69 86	51	57	51	51 64	63	48	45	45 57
	1200	±10	86	110	97	97	82	82	76	85	96	104	76	85	76	76	76	72	67	68
	1400	±12	96	124	114	113	97	97	90	100	112	122	89	99	89	89	89	84	79	79
	1600	+12	111	142	130	130	111	111	103	114	129	140	102	114	102	102	102	96	90	90

±14 125 160 147 147 125 125 116 129 145 159 116 128 116 116 116

±14 139 177 164 163 140 139 130 144 162 177 129 143 129 129 129 121 114 114

±15 153 195 180 180 154 154 143 159 179 195 142 158 142 142 142 133 126 126

±15 167 213 197 197 168 168 156 174 195 213 156 173 156 156 156 146 137 137

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Firewall / Firewall II								
Tensile Strength PIW	220	330	440	400	600	800	1000	
Number of plies	2	3	4	2	3	4	5	
Pulley High Tension	10″	16″	25″	16″	25″	32″	50″	
Pulley Low Tension	8″	12″	20″	12″	30″	25″	40″	

Fireshield									
Tensile Strength PIW	400	500	600	700	800	800	1000	1200	
Number of plies	1	1	1	1	1	2	2	2	
Pulley High Tension	12″	20″	20″	25″	25″	32″	40″	40″	
Pulley Low Tension	10″	16″	16″	20″	20″	25″	32″	32″	

Firemaster - PVG									
Tensile Strength PIW	400	500	600	700	800	1000	1200	1400	1800
Number of plies	1	1	1	1	1	1	1	1	1
Pulley High Tension	20″	20″	25″	32″	32″	32″	40″	40″	50″
Pulley Low Tension	16″	16″	20″	25″	25″	25″	32″	32″	40″

Firemaster -	Firemaster - Steel Cord												
Tensile Strength N/ mm	ST630	ST800	ST1000	ST1250	ST1600	ST2000	ST2500	ST3150	ST3500	ST4000	ST4500	ST5000	
Pulley High Tension	20″	20″	25″	32″	40″	50″	55″	60″	63″	63″	63″	71″	
Pulley Low Tension	16″	16″	20″	25″	32″	40″	40″	50″	50″	50″	50″	55″	

*High tension pulleys Wrap: Head, Drive, Tripper *Low tension pulleys Wrap: Tail, Take-up, Take-up bend

Recommended Pulley Diameters

