

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 equipment (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.



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CONVEYOR OR ELEVATOR BELT TO TRANSPORT HOT MATERIAL

TEXTILE CARCASES

● DELTATHERM
Multiply with rubber cover

● DX-FLEX
Straight-warp polyester
with rubber cover

STEEL-CORD CARCASES

● DX/ST
Steel-cord
with rubber cover

● DX MAT
Steel-cord Straight-warp warp/weft
weaving with rubber cover



Conveyor or elevator belt to transport hot material



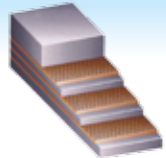
Use Belts described in this brochure are used to convey hot products with temperature higher than 80°C.
DEPREUX offers conveyor or elevator belt that can be used to transport hot material up to 250 °C.

Belt construction Conveyor and elevator belts are composed :

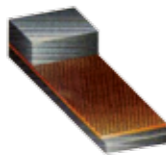
- **Carcase, different type of carcass : textile or steel-cord** (the different carcasses are described in the brochure « conveyor or elevator belts to conveying abrasive and sharp material, or with high loading impact in ambient temperature »)
- **Top rubber cover**, assure the contact with material conveyed.
- **Bottom rubber cover**, assure the contact with the support bolt.

Three categories of heat resistance are offered, T1, T2, T3 with different carcass :


Range




DELTAHERM - Textile multiply belt
Categories T1, T2, T3
 DELTA is a belt with a traditional « multiply » construction, composed by several fabric plies, rubber interplies and top and bottom covers.



DX FLEX - Textile belt « straight-warp »
Categories T1, T2, T3
 DX-FLEX is textile « straight-warp » belt, the warp is polyester, protected on two sides by a textile polyamide weft. DX-Flex has good tearing resistance, good damage resistance and strong strength mechanical faster retention.



DX/ST - Steel-cord belt
Categories T1, T2, T3
 Steel-cord belt.
 DX-ST is belt composed by steel-cords extending along the overall length of the belt. In this construction there is no weft. (in the figure, DX-ST has a steel-cord breaker in the top cover)



DX-MAT - Steel-cord Belt « straight-warp »
Categories T1 and T2
 Warp and weft is made using steel-cords.

Transport hot material with flame and oil resistance This specific belt required to be hot resistant, oil resistant and flame resistant are described in the brochure « Safety conveyor and elevator belts for aboveground application ».

This belt DELTA FORCE :

- Allows transport of material up to a maximum temperature of 140 °C
- **Conforms with the safety standard NF EN 12882, class 5A, antistatic test, drum friction test and flammability mini tunnel test**
- Has polychloroprène cover, with medium oil/grease resistance

Recommendations in order to maximise the life expectancy of a heat resistant belt We advise in order to improve the life expectancies of the belt :

- Maximise the top cover thickness
- Maximise the carcass thickness, for example, use one ply more than what would be used normally (4 plies instead of 3 plies)
- maximise drum diameters (one size above the normal for example)
- For some applications, with hot glowing material, it can be of benefit to « bakelise » the cover. This forms a protective insulation cover for the belt

Use of fibre glass breaker plies To convey a very hot material or in the case of high peaks of temperature up to 220°C, it is recommended to include in the cover, a fibre glass breaker ply. This will protect the carcass from the heating action and extend the life of the belt.

Mechanical characteristics of covers A full range of constructions, cover grades with their mechanical characteristics are described in the following table.

Categories of heat resistance	Temperature used for the ageing test in accordance with ISO 4195 (1&2)	Continuous material operating temperature	Maximum temperature of the belt surface	Maximum temperature of the conveyed material*	Cover			
					Abrasion resistance	Tensile strength	Elongation at break	Cover grade
	°C	°C	°C	°C	mm ³	Mpa	%	
T1	100°C	-20°C to +100°C	+100°C to +130°C	+130°C continuous +150°C peak	<200	>14	>400	SBR
T2	125°C	-20°C to +125°C	+125°C to +150°C	+150°C continuous +200°C peak	<150	>15	>400	SBR
T3	150°C	-20°C to +150°C	+150°C to +200°C	+200°C continuous +400°C peak	<100	>13	>290	EPDM

* The maximum temperature of the material to be conveyed depends on several factors. This can be higher in the following cases :

- Long centered conveyors : the belt can cool down during the return phase
- High granulometry of the material : Conveyed material does not fully covers the entire surface belt. The large granulometry also increases the heat exchange with the outside, cooling the conveyed product.
- Surrounding environment : mild or cold

Life expectancies of conveyor or elevator belts transporting hot materials is less than for standard belts. It depends on the cumulated time that the belt is exposed to high temperature.
 Our warranty is limited to guaranteeing that the belt complies with ISO4195 for the different categories of heat resistance.

Categories T1, T2 or T3 DEPREUX's belts are in compliance with the International Standard for conveying hot material ISO 4195 (1&2).
The standard defines three categories of belt heat resistance ; each category must specifies the variations authorized in the mechanical properties of cover.

Variation from initial values of mechanical characteristics	Categories of heat resistance			
	T1	T2	T3	
Test temperature	100°C	125°C	150°C	
Test duration	7 days	7 days	7 days	
	Maximal variabilities			
Hardness	Maximum variation from the initial value, in degrees DIDC	+20	+20	+20
	Maximum value	85	85	85
Elongation at break	Maximum variation from the initial value, %	-50	-50	-55
	Minimal value, %	200	200	180
Tensile strength	Maximum variation from the initial value, %	-25	-30	-40
	Minimal value, Mpa	12	10	5

Characteristics of the carcass components for conveyor or elevator belt All the performance characteristics of the carcass components for conveyor or elevator belt transporting hot material are the same as those described in the brochure « Conveyor or elevator belts for the transport of abrasive materials or with impact loading in ambient environment », including a comparison of different belt construction on page 13 and the minimum diameter drum diameter on page 15 for which it is recommended to take a higher size.

Name DELTATHERM EP 630/4 - 1000 - 6 + 2 - T1
 DELTATHERM : Temperature resistant multiply textile belt
 EP : Warp polyester, weft polyamide
 630 : Minimum full longitudinal (warp) tensile strength N/mm
 4 : Number of plies
 1000 : Belt width mm
 6 + 2 : Thickness of the top and bottom cover in mm
 T1 : Category of heat resistance