HEAT RESISTANT CONVEYOR AND ELEVATOR BELTS

COBRA GROUP

Belts described in this part are used to convey hot products with temperatures higher than 80°C, and can be used to transport hot materials up to 200°C.

To improve the life expectancies of the belt, we recommand:

- to maximise the top cover thickness,
- to maximise the carcass thickness, for example, use one ply more than what would be used normally (4 plies instead of 3 plies).

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.

Special case with belts which must be hot resistant, oil resistant and flame resistant: DELTAFORCE with the following characteristics.

- allows transport of materials up to a maximum temperature of 110 °C,
- conforms to the safety standard NF EN 12882, class 5A, antistatic test, drum friction test and flammability mini tunnel test,
- has polychloroprene cover, with medium oil/fat resistance.

Belt construction

Conveyor and elevator belts are composed of:

- **fabric or steel carcass.**
- **two rubber covers** : a top cover ensuring contact with the transported material and the bottom cover ensuring contact with the conveyors drums.

MULTIPLY

DELTATHERM

POLYESTER STRAIGHT-WARP

DX FLEX

ARAMID STRAIGHT-WARP

DX FLEXAMID

STEEL CORD

DX-ST

STEEL STRAIGHT-WARP

DX-MAT

DEPREUX's belts are in compliance with the International Standard for conveying hot material ISO 4195 (1&2).

The standard defines three categories of heat resistance belts. We produce categories T2, T3.

Each category must specify the variations authorized in the mechanical properties of cover.

Variation from initial values of mechanical characteristics		Type of belts	
		T2	T3
Test temperature		125°C	150°C
Test duration		7 days	7 days
		Maximum variation	
Elongation at the break	Maximum variation from the initial value, %	-50	-55
	Minimal value, %	200	180
Break resistance	Maximum variation from the initial value, %	-30	-40
	Minimal value, Mpa	10	5

This table describes the nature of the coating, as well as its mechanical characteristics. Our commitment in terms of temperature resistance is limited to the conformity of the constituents with the ISO 4195 standard.

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 conveyed material	Covers			
				Abrasive index	Break resistance	Elongation at break	Composition
	°C	°C	°C	mm3	Mpa	%	
T2	125°C	-20°C to +125°C	+150°C	<150	>15	>400	SBR
T3	150°C	-30°C to +150°C	+200°C	<100	>13	>290	EPDM