

HEAT RESISTANT CONVEYOR AND ELEVATOR BELTS





The belts described in this part are used to convey hot products with temperatures higher than 176 °F (80°C), and can be used to transport hot materials up to 392°F (200°C.)

To improve the life expectancy of the belt, we recommend:

- to maximize the carcass thickness by using one ply more than what would be used normally (4 plies instead of 3 plies).

For some applications, like with hot glowing material, it can be beneficial to treat the cover. This forms a protective insulation cover for the belt.

There are special cases where belts which must be heat resistant, oil resistant and flame resistant: In these cases, we recommend using Deltatherm, to gain the benefits of the following characteristics.

- allows transport of materials up to a maximum temperature of 230°F (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.



MULTI-PLY

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 belt	
		T2	T3
Test temperature		257°F/125°C	302°F/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
	°F (°C)	°F (°C)	°F (°C)	mm3	Mpa	%	
T2	257°F (125°C)	-4°F to 257°F (-20°C to +125°C)	302°F (150°C)	<150	>15	>400	SBR
T3	302°F (150°C)	-22°F to 302°F (-30°C to +150°C)	392°F (200°C)	<100	>13	>290	EPDM