



The Next Step in Belting



Deep Freeze  
Applications

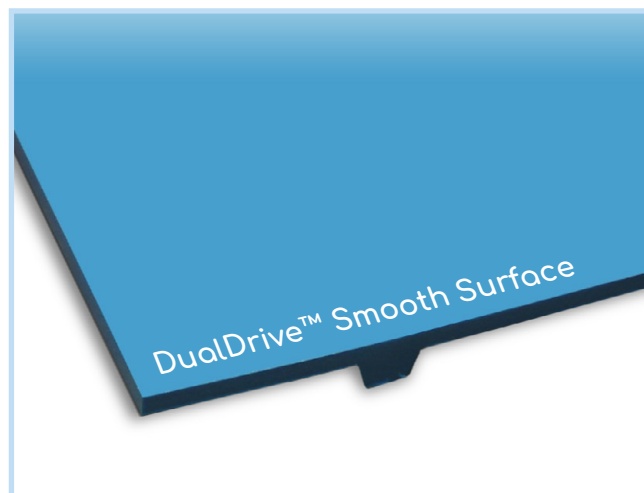
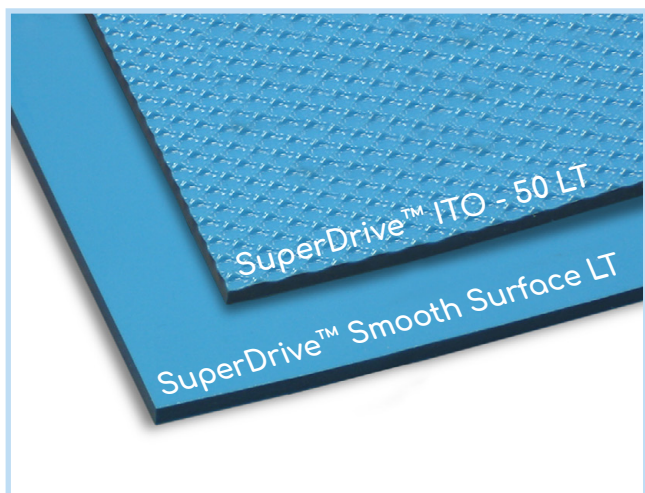
Conveying Solutions

## Low Temperature (LT) Belts for Deep Freeze Applications

Volta Belting Technology has successfully launched the latest addition to the largest range of hygienic belts available. A thermoplastic material with excellent strength and enhanced resistance to frozen temperatures, the LT (Low Temperature) belting is rated for use at temperatures down to -35° C / -31° F. The belting will not crack and fragment. It is not brittle which means an end to fragmented particles being fed into the product flow. For extra safety, it is manufactured in a food-certified blue color.

The belt is employed in plants processing fish and vegetables in deep freeze environments and it can be perforated for use in freezer tunnels. It is available in continuous lengths with a maximum width of 1500mm. In addition to the resistance to low temperatures, the LT material adheres to the Volta tradition of low bacteria counts and offers the usual Volta savings in running costs with reduced cleaning time and low maintenance. Factories working at close to full capacity will benefit from the availability of extra production time currently wasted on cleaning procedures needed for modular belts.

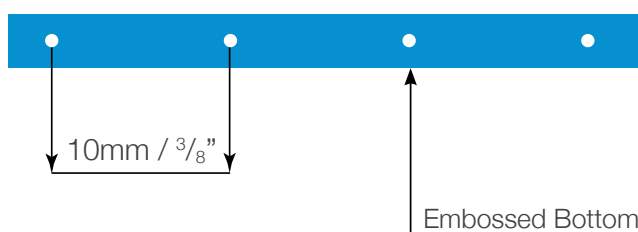
LOW TEMPERATURE (LT) POSITIVE DRIVE BELTS											
Product & Color		Shore Hardness	Temperature Range	Coefficient of Friction (bottom) UHMW	Thickness		Minimum Pulley Diameter		Maximum Pull Force		Certifications
					mm		mm	Inch	kg/cm width	lbs/in width	
<b>SuperDrive™ (LT) Belts</b>											
FMB-SD-LT	Blue 15	95A/46D	-35°C to 65°C -31°F to 149°F	0.30	3	80	3¼	3	16.80	FDA/EU	
FMB-SD-ITO50-LT											
<b>DualDrive (LT) Belts</b>											
FMB-DD-LT	Blue 15	95A/46D	-35°C to 65°C -31°F to 149°F	0.30	3	80	3¼	3	16.80	FDA/EU	
FMB-DD-ITO50-LT											



LOW TEMPERATURE (LT) FLAT FOOD CONVEYOR BELTS										
Product & Color		Shore Hardness	Temperature Range	Coefficient of Friction (bottom) UHMW	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 1%		Certifications
						mm	Inch	kg/cm width	lbs/in width	
Smooth Homogenous Low Temperature (LT) Belts										
FMB-LT	Blue15	95A/46D	-35°C to 65°C -31°F to 149°F	0.30	2	30	1 3/16	0.80	4.40	FDA/EU
					3	40	1 5/8	1.20	6.70	
					4	60	2 3/8	1.60	9	
					5	80	3 1/8	2	11.20	
					6	90	3 9/16	2.40	13.40	

Aramid Cord Reinforced (ACR) Low Temperature (LT) Belts*										
Product & Color		Shore Hardness	Temperature Range	Coefficient of Friction (bottom) S.Steel	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 0.2%		Certifications
						mm	Inch	kg/cm width	lbs/in width	
FELB-ACR-ITO50-LT	Blue 15	80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	18	45/64	4	22.40	FDA/EU
FELB-ACR-ITO50-LT	Blue 15	95A/46D	-35°C to 50°C -30°F to 120°F	0.25	2.5	40	1 5/8	4	22.40	FDA/EU

**Note:** \* Pull force in table relates to a finger splice weld 20x50mm. The calculation is in accordance with a welding area which has a strength of 28kg/cm. Note that various finger splice methods and different tools can result in differing belt strengths.



## Guidelines and Suggested Materials for the Fabrication of Low Temperature (LT) belts

**Important Note:** The Low Temperature material (LT) should be treated as a separate family of materials in terms of fabrications. The Low Temperature material (LT) must not be combined with/welded to Volta H material.

- Sidewalls & Guides:** It is possible to weld Sidewalls from L material to the LT belts. Sidewalls & Guides must be positioned at a minimum distance of 100mm from the belt teeth.
- Flights:** Should be welded between the teeth as indicated on the sketch in the SuperDrive™ Technical Manual. Can be welded over the teeth if they do not exceed the tooth width. Must not be welded next to the teeth as indicated on the sketch.
- Electrodes:** We do not recommend using electrodes for welding flights on these belts. The entire belt area around the welded electrode becomes rigid and the belt's flexibility is lost.
- HF Welding:** We only approve HF welding of flights on LT belts.
- Endless Joining:** We recommend joining LT belts with a butt weld using the FBW Tool.

Guides			
Product		VLB-LT / VLC-LT	
Bottom		V guide	
Shore Hardness		80A	
Color		Blue 15	Clear
Size (mm)			
Width	Height	mm	inch
10	6	40	1 5/8
13	8	45	1 3/4
17	11.50	70	2 3/4

### Guidelines and Suggested Materials for the Fabrication of Low Temperature (LT) belts

- ✓ Pulleys: Use the largest diameter available.
- ✓ Open the conveyor in the area of the pulleys to allow air circulation and reduce the humidity.
- ✓ The environment in the work area should be as dry as possible.
- ✓ Ice formation results from humidity and cold and a limiting of these parameters will reduce the problem.
- ✓ Use carefully positioned scrapers made from H material on the top side of belt to avoid product sticking.
- ✓ Use carefully positioned scrapers made from H material in front of the tail pulley and on the inside of the belt to avoid ice build-up.

