

ELLEGAARD.



VOLTA

Flat belts - food grade

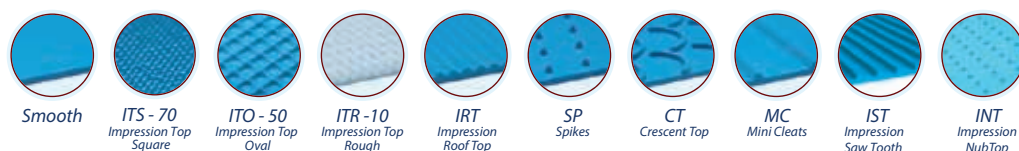
FOOD

- ➔ Volta has been manufacturing belts from homogenous Thermoplastic Elastomer (TPE) mterials for over 40 years.
- ➔ The base belts are cut and abrasion resistant and have no ply or hinged elements which harbor bacteria.
- ➔ Volta products are the optimal choice where superior hygiene, conveying and cost efficiency are targets.

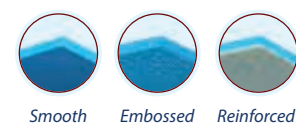
Homogeneous Belts													
Product & Color		Shore Hardness	Temperature Range	Coefficient of Friction on Steel (Bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 1%		Approvals			
					mm	mm	Inch	kg/cm	lbs/in				
FHB		59D	-20° C to 75° C -5° F to 170° F	0.28	1.5	50	2	1.50	8.40	FDA/ USDA/ EU			
					2	70	2 ¾	2	11.20				
					3	90	3 9/16	3	16.80				
					4	110	4 ¾	4	22.40				
					5	150	5 7/8	5	28.00				
					6	180	7	6	33.60				
FHW		59D	-20° C to 75° C -5° F to 170° F	0.28	1*	34	1 ¾	1	5.60	FDA/ USDA/ EU			
					1.5	50	2	1.50	8.40				
					2	70	2 ¾	2	11.20				
					2.5	80	3 1/8	2.50	14.00				
					3	90	3 9/16	3	16.80				
					4	110	4 ¾	4	22.40				
					5	150	5 7/8	5	28.00				
FMB		95A/46D	-30° C to 60° C -20° F to 140° F	0.36	2	30	1 3/16	1.20	6.80	FDA/ USDA/ EU			
					2.5	35	1 ¾	1.50	8.40				
3	40				1 5/8	1.80	10.10						
4	60				2 ¾	2.40	13.50						
FMW					95A/46D	-30° C to 60° C -20° F to 140° F	0.36	5	80		3 1/8	3	16.90
								6	90		3 9/16	3.60	20.25
								7	105		4 1/3	4.20	23.80
								8	120		4 1/2	4.80	27.20
FW		95A/46D	-30° C to 60° C -20° F to 140° F	0.36	2	30	1 3/16	1.14	6.40	FDA/ USDA/ EU			
FLB		80A	-40°C to 50°C/ -40°F to 120°F	0.55	2.5	17	2 1/32	0.30	1.80	FDA/EU			
					3	20	¾	0.40	2.20				
					4	30	1 3/16	0.60	3.40				
FTB		72A	-40°C to 40°C -40°F to 104°F	1.25	2.5	16	5/8	0.475	2.66	FDA/ USDA/ EU			
					3	19	¾	0.57	3.2				
Low Temperature (LT) Homogeneous Belts													
FMB-LT		95A/46D	-35°C to 40°C -31°F to 104°F	0.4	1.6	16	5/8	0.64	3.60	FDA/ USDA/ EU			
					2	30	1 3/16	0.80	4.40				
					3	40	1 5/8	1.20	6.70				
					4	60	2 ¾	1.60	9				
					5	80	3 1/8	2	11.20				
					6	90	3 9/16	2.40	13.40				
Metal Detectable (MD) Homogeneous Belts													
FMB-MD		53D	-20°C to 60°C -5°F to 140°F	0.50	2	50	2	2.40	13.44	FDA			
					3	75	3	3.60	20.16				
					4	100	4	4.80	26.88				
					6	150	5	7.20	40.32				

Note: Standard belt width = 1524mm (60") / 2032mm (80")
* Not standard.

Flat Belt Top Surfaces



Flat Belt Bottom Surfaces



Homogeneous Embossed Bottom Belts											
Product & Color		Shore Hardness	Temperature Range	Coefficient of Friction on Steel (Bottom)	Thickness		Minimum Pulley Diameter		Pull Force: Pretension of 1%		Approvals
					mm	mm	Inch	kg/cm	lbs/in		
FEHB		59D	-20° C to 75° C -5° F to 170° F	0.20	3	90	3 ⁹ / ₁₆	3	16.80	FDA/ USDA/ EU	
FEHW					4	110	4 ³ / ₈	4	22.40		
FEMB		95A/46D	-30° C to 60° C -20° F to 140° F	0.25	1.6	24	1 ⁹ / ₁₆	0.60	3.60	FDA/ USDA/ EU	
					2	30	1 ³ / ₁₆	0.80	4.50		
					2.5	35	1 ³ / ₈	1	5.60		
					3	40	1 ⁵ / ₈	1.20	6.80		
FEMW		95A/46D	-30° C to 60° C -20° F to 140° F	0.25	2	30	1 ³ / ₁₆	0.80	4.50	FDA/ USDA/ EU	
					2.5	35	1 ³ / ₈	1	5.60		
					3	40	1 ⁵ / ₈	1.20	6.80		
					4	60	2 ³ / ₈	1.60	9.20		
FEMB-MD**		53D	-20° C to 60° C -5° F to 140° F	0.30	2	50	2	1.70	9.5	FDA	
					3	75	3	2.50	14		
FELB		80A	-40° C to 50° C -40° F to 120° F	0.45	1.6	10	3 ⁸ / ₈	0.32	1.79	FDA/ EU	
FELW					2	12	1 ² / ₂	0.40	2.24		
					2.5	15	9 ¹⁶ / ₁₆	0.50	2.80		
FEW		95A/46D	-30° C to 60° C -20° F to 140° F	0.25	3	20	1 ³ / ₁₆	0.60	3.36		
					2	30	1 ³ / ₁₆	0.76	4.20	FDA/ USDA/ EU	
FETB		72A	-40° C to 40° C -40° F to 104° F	1	3	40	1 ⁵ / ₈	1.12	6.30		
					1.6	10	3 ⁸ / ₈	0.29	1.6	FDA/ USDA/ EU	
					2	13	1 ² / ₂	0.36	2		
Reinforced Belts											
FRLB		80A	-40° C to 50° C -40° F to 120° F	0.20	1.6	8	5 ¹⁶ / ₁₆	4	22	FDA/ EU	
					2	10	3 ⁸ / ₈	5	28		
FRLW		80A	-40° C to 50° C -40° F to 120° F	0.20	1.6	8	5 ¹⁶ / ₁₆	4	22	FDA/ EU	
					2	10	3 ⁸ / ₈	5	28		
					2.5	15	9 ¹⁶ / ₁₆	6.20	35		
FRMB		95A/46D	-30° C to 60° C -20° F to 140° F	0.20	3	18	1 ¹ / ₁₆	7.50	42		
					2	25	1	6	33.50	FDA/ USDA/ EU	
FRMW		95A/46D	-30° C to 60° C -20° F to 140° F	0.20	3	35	1 ³ / ₈	7	39		
					2	25	1	6	33.50	FDA/ USDA/ EU	
					2.5	30	1 ³ / ₁₆	6.50	36.20		
FRTB*		72A	-40° C to 40° C -40° F to 104° F	0.20	1.6	8	5 ¹⁶ / ₁₆	2.60	14.90	FDA/ USDA/ EU	

Note: Standard belt width = 1524mm (60") / 2032mm (80")
 FRTB* - Pull Force (PF) calculated with Finger Splice welding.
 FEMB-MD**-Metal Detectable belt.

Impression Top Belts

Product & Color		Shore Hardness	Temperature Range	Coefficient of Friction on Steel (Bottom)	Thickness		Minimum Pulley Diameter		Pull Force: Pretension of 1%		Approvals
					mm		mm	Inch	kg/cm	lbs/in	
ITS70	FELB - ITS70	80A	-40° C to 50° C -40° F to 120° F	0.45	1.6		10	3/8	0.24	1.40	FDA/ EU
					2		12	1/2	0.30	1.74	
IST	FELB - IST	80A	-40° C to 50° C -40° F to 120° F	0.45	2//4**		35	1 3/8	0.40	2.20	FDA/ EU
ITO 50	FELB - ITO50	80A	-40° C to 50° C -40° F to 120° F	0.45	2		12	1/2	0.32	1.87	FDA/ EU
	FELW - ITO50				2.5		15	9/16	0.40	2.32	
					3		18	11/16	0.50	2.80	
	FMB - ITO50	95A/46D	-30° C to 60° C -20° F to 140° F	0.36	2.5		35	1 3/8	1.50	8.40	FDA/ USDA/ EU
	FEMB - ITO50	95A/46D	-30° C to 60° C -20° F to 140° F	0.25	2		30	1 3/16	0.60	3.36	FDA/ USDA/ EU
					2.5		35	1 3/8	0.74	4.20	
					3		40	1 5/8	0.94	5.26	
	FEMW - ITO50	95A/46D	-30° C to 60° C -20° F to 140° F	0.25	2		30	1 3/16	0.60	3.36	FDA/ USDA/ EU
					2.5		35	1 3/8	0.74	4.20	
					3		40	1 5/8	0.94	5.26	
ITR10	FELW - ITR10	80A	-40° C to 50° C -40° F to 120° F	0.45	3		18	11/16	0.52	2.94	FDA/ EU
					4		25	1	0.70	3.92	
IRT	FELB - IRT	80A	-40° C to 50° C -40° F to 120° F	0.45	4		25	1	0.60	3.40	FDA/ EU
	FEMB - IRT	95A/46D	-30° C to 60° C -20° F to 140° F	0.25	3.5		40	1 9/16	1	5.60	FDA/ USDA/ EU
4						55	2 3/16	1.20	6.80		
Spikes*	FELB - SP	80A	-40° C to 50° C -40° F to 120° F	0.45	2		20	13/16	0.40	2.24	FDA/ EU
					2.5		24	15/16	0.50	2.80	
					3		28	1 1/8	0.60	3.36	
	FEMB - SP	95A/46D	-30° C to 60° C -20° F to 140° F	0.25	2		40	1 5/8	0.80	4.50	FDA/ USDA/ EU
FEMW - SP	2.5					45	1 3/4	1	5.60		
					3		50	2	1.20	6.80	
NUBTOP	FEMB-INT	95A/46D	-30° C to 60° C -20° F to 140° F	0.25	2		50	2	0.80	4.50	FDA/ USDA/ EU
Crescent Top	FELB - CT	80A	-40° C to 50° C -40° F to 120° F	0.45	3		35	1 3/8	0.60	3.36	FDA/ EU
	FMB - CT	95A/46D	-30° C to 60° C -20° F to 140° F	0.40	3		60	2 3/8	1.80	10.12	FDA/ USDA/ EU
	FEMB - CT			0.25	3		60	2 3/8	1.20	6.75	
	FEMW - CT			0.25	2.5		50	2	1	5.60	
Mini Cleats	FELB - MC	80A	-40° C to 50° C -40° F to 120° F	0.45	2.5		40	1 5/8	0.50	2.80	FDA/ EU
	FELW - MC	80A	-40° C to 50° C -40° F to 120° F	0.45	2.5		40	1 5/8	0.50	2.80	FDA/ EU
					3		50	2	0.60	3.40	
FEMB - MC	95A/46D	-30° C to 60° C -20° F to 140° F	0.25	3		70	2 3/4	1.20	6.80	FDA/ USDA/ EU	

Note: Standard belt width = 1524mm (60") / 2032mm (80")

* Spikes -Height of Spikes above base belt is 2.8mm

** FELB-IST - Base - 2mm; total belt height 4mm.

Reinforced Impression Top Belts											
Product & Color		Shore Hardness	Temperature Range	Coefficient of Friction on Steel (Bottom)	Thickness		Minimum Pulley Diameter		Pull Force: Pretension of 1%		Approvals
					mm		mm	Inch	kg/cm	lbs/in	
FRLB - ITO50		80A	-40°C to 50°C / -40°F to 120°F	0.20	2.5		15	9/16	3.20	18	FDA/ EU
FRLW - ITO50		80A	-40° C to 50° C -40° F to 120° F	0.20	2.5		15	9/16	3.20	18	FDA/ EU
					3		18	11/16	3.48	21.60	
FRMB - ITO50		95A/46D	-30° C to 60° C -20° F to 140° F	0.20	2.5		32	1 1/4	4.10	24	FDA/ USDA/ EU
					3		36	17/16	4.30	25.20	
FRMW - ITO50		95A/46D	-30° C to 60° C -20° F to 140° F	0.20	2.5		32	1 1/4	4.10	24	FDA/ USDA/ EU
					3		36	17/16	4.30	25.20	
FRLW - ITR10		80A	-40°C to 50°C / -40°F to 120°F	0.20	4		30	1 3/16	3.40	19	FDA/ EU
FRLB - ITS70		80A	-40° C to 50° C -40° F to 120° F	0.20	1.6		8	5/16	4	22	FDA/ EU
					2		10	3/8	5	28	

Covered Bottom Flat Belts

Ideal for special applications, for example in bakeries and confectioneries where reinforcement is necessary and hygiene cannot be compromised. The fabric reinforcement is thermally-coated with a thin layer of Volta TPE to provide a seal, preventing both contamination and delamination. As an extra precaution, belt edges can be thermo-sealed or recessed to prevent fraying and the ingress of contaminants.



Fabric Reinforcement coated with homogeneous Volta material.

Covered Bottom/ Covered Bottom Impression Top Belts											
Product & Color		Shore Hardness	Temperature Range	Coefficient of Friction on Steel (Bottom)	Thickness		Minimum Pulley Diameter		Pull Force: Pretension of 1%		Approvals
					mm		mm	Inch	kg/cm	lbs/in	
FRLB - CEB - B		80A	-40° C to 50° C -40° F to 120° F	0.30	2		19	3/4	2.20	12.40	FDA/ EU
					3		30	1 1/4	2.80	15.60	
FRLW - CEB - B		80A	-40° C to 50° C -40° F to 120° F	0.30	2		19	3/4	2.20	12.40	FDA/ EU
					3		30	1 1/4	2.80	15.60	
FRLW - CEB - C		80A	-40° C to 50° C -40° F to 120° F	0.20	2		19	3/4	2.20	12.40	FDA/ EU
					3		30	1 1/4	2.80	15.60	
FRLW - CB		80A	-40°C to 50°C / -40°F to 120°F	0.45	2		19	3/4	3.10	17.40	FDA/ EU
FRMB - CEB - B		95A/46D	-30° C to 60° C -20° F to 140° F	0.30	3		40	1 5/8	6.80	38	FDA/ USDA/ EU
FRMB - CEB - C				0.30	3		40	1 5/8	6.80	38	FDA/ USDA/ EU
FRMB - CB				0.45	3		40	1 5/8	7.20	40	FDA/ USDA/ EU
FRMW - CEB - C				0.30	3		40	1 5/8	6.80	38	FDA/ USDA/ EU
FRLB - CEB - B - ITO50		80A	-40°C to 50°C / -40°F to 120°F	0.30	2.5		15	9/16	3.50	18	FDA/ EU

Belt Coating Materials for the Food Industry							
Products		GIB	MIB	WIB	FEIB	FEMB/FEMW-SP	FELB-SP
Illustration							
Description		Super Grip	Multi Grip	Wood Grip	High Grip	Spikes	Spikes
Hardness		62A	62A	62A	62A	95A	80A
Size (mm)	Width*	50	50	70	1524	1524	1524
	Thickness	4	6	4	2/2.5/3/4	2/ 2.5/ 3*	2/ 2.5/ 3*
CoF (Steel)		0.98	1.08	1.05	0.95	0.25	0.45
Temperature Range		-20° C to +40° C				-30° C to +60° C	-40° C to +50° C

Note: Width* - Maximum available width. **Height of Spikes above base belt is 2.8 mm.

ELLEGAARD.

Aramid Cord Reinforced Belts

A food grade flat belt with special tensioning members hermetically encased in non-porous homogeneous material which has been tested for durability. Used mainly in applications such as loads on long narrow belts with small diameter pulleys.



Aramid Cord Reinforced (ACR) Embossed Bottom Belt										
Product & Color		Shore Hardness	Temperature Range	CoF (bottom) UHMW	Thickness (mm)	Minimum Pulley Diameter		Pull Force: Pretension of 0.2%		Approvals
						mm	inch	kg/cm width	lbs/in width	
FELB-ACR		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	20	0.79	4.2	23.40	FDA/EU
Aramid Cord Reinforced (ACR) Impression Top & Embossed Bottom Belt										
FELB-ITO50-ACR**		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	20	0.79	4	22.40	FDA/EU
FELB-ITO50 ACR RAL 5002		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	20	0.79	4	22.40	FDA/EU
FELB-IST-ACR		80A	-40°C to 50°C -40°F to 120°F	0.45	2 // 4*	35	1.38	4.2	23.40	FDA/EU
Low Temperature (LT) Aramid Cord Reinforced (ACR) Impression Top & Embossed Bottom Belt										
FELB- LT- ITO50-ACR		80A	-40°C to 50°C -40°F to 120°F	0.45	2.5	18	0.70	4	22.40	FDA/EU
FEMB- LT- ITO50-ACR		95A/46D	-35°C to 50°C -30°F to 120°F	0.25	2.5	40	1.57	4	22.40	FDA/EU

Note: *FELB-IST-ACR – Base belt thickness = 2mm // Total belt thickness including Saw tooth impression top = 4mm

Pull force in table relates to a finger splice weld 20x50 mm. The calculation takes into account the weld splice which has strength of 28kg/cm.

Note that various finger splice methods and different tools can result in differing belt strengths.

**Available belt width: 1524mm/60inch-standard or 2032mm/80inch.

Endless Splicing Techniques



FT - Electrode Welding System
The FT Welding System provides electrode welding technology.



FBW Flat Butt Welding System
The FBW System performs a butt-weld merging belts edge to edge.

Volta Hinge Lace System

Volta lace is compatible with Volta 'M' material belts from 2.5 to 5 mm thickness.

All Volta flat belt materials are easy to clean without removing from conveyor and therefore lace is used only where absolutely necessary. The strength of the belt will be affected at the joint where lace is used.

