

BAKE OVEN BELTS

Berndorf Band is one of the world's leading manufacturers of high-quality process belts for the food industry.

Baked goods rely on steel belts from Berndorf Band

When it comes to baking, cooling, deep-freezing, steaming, drying and transporting food, steel belts are often exposed to extreme mechanical and thermal stress. Berndorf Band steel belts are made to match these high requirements. They prove high quality and reliability even at fluctuating operating temperatures and a high number of load cycles. It goes without saying that Berndorf Band belts meet strictest hygienic requirements.

Our steel goes through a complicated heat treatment process achieving the required tensile strength and surface for a bake oven belt. Due to CARBO 13 a Berndorf belt for baked goods can easily handle operating temperatures of up to 400°C. The uniform dark, heat-absorbing surface ensures highest product quality and energy efficiency.

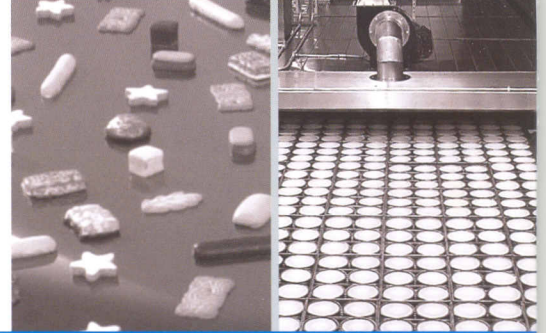


Several important and well reputed OEM bake oven producers and well known bakeries rely on our quality and specify steel belts from Berndorf Band for their projects.

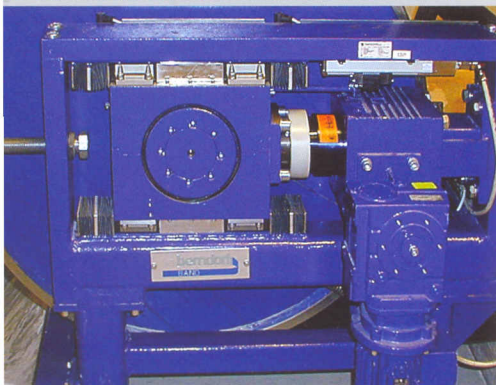
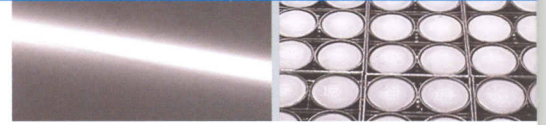
Continuous Reliability

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Endless steel belts from the beginning



During each production step all steel belts from Berndorf Band are run in endless condition between two drums.

The results of this production method are perfect tracking and best belt straightness. For you as a customer this means less down time resulting from tracking problems and longer belt life due to less belt damage.

Furthermore steel belts from Berndorf Band show the most excellent flatness leading to improved product quality and less scrap.

Technical support

Berndorf Band has an international service network offering steel belt installation, repair and inspection. Highly qualified Berndorf Band engineers and service technicians can perform inspections on your steel belt and conveyor. We also offer other special engineering services related to conveyor improvements.

Our main focus is to ensure that our customers receive the very best support.

Belt Tracking Systems

A reliable belt tracking system is critical to the trouble-free operation of a steel belt system. It must withstand widely varying conditions, such as pressure and temperature, and protect the steel belt from excessive stress. Berndorf Band offers well proven and safe tracking systems.



Perforated steel belts & accessories



Vee-ropes & product retaining strips

Berndorf Band guarantees perfect adhesion of vee-ropes and product retaining strips.

Material of vee-ropes

Natural or nitrile rubber (standard)
for operating temperatures from -20°C to +100°C

Natural rubber
for operating temperatures from -60°C to +60°C
Spiral vee-rope made of stainless steel
for operating temperatures exceeding +100°C

Material of product retaining strips

Nitrile rubber
for operating temperatures from -20°C to +100°C
Natural rubber
for operating temperatures from -60°C to +60°C
Silicone rubber
for operating temperatures from -80°C to +200°C

Perforated steel belts

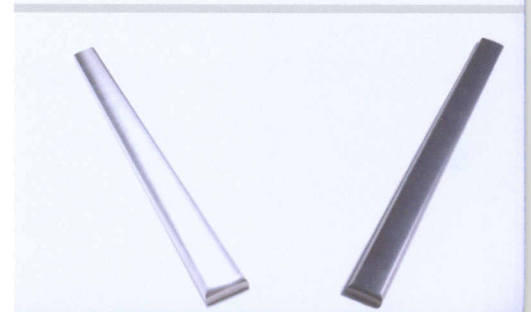
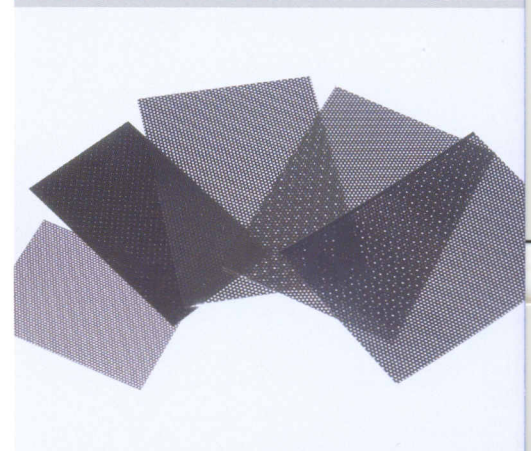
Berndorf Band can provide the following standard perforations:

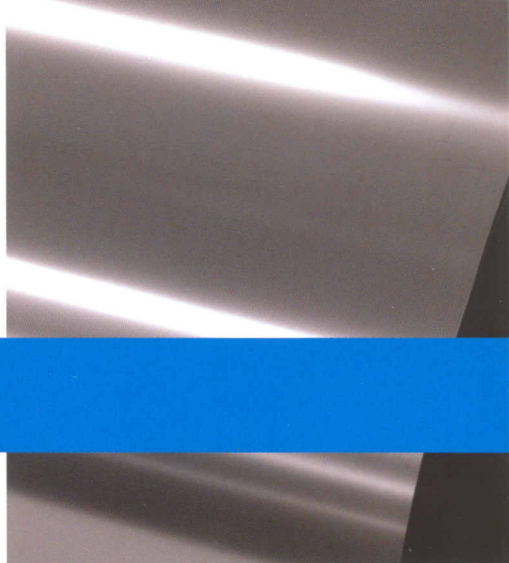
Hole diameter	2,5 mm	3,0 mm	3,1 mm
Triangular pitch	5,0 mm	6,5 mm	5,0 mm
Open space	22,68%	19,32%	34,87%

Other, special perforations are available on request.

Skid- & graphite bars

Cast iron skid bars for support and graphite bars for lubrication purposes are supplied by Berndorf Band based on your specifications.





Technical data

Physical and mechanical properties. Typical values.

Material			CARBO 13
Type			Ck 67
Similar material	DIN		1.1231
	AISI		-
Tensile strength	RT	N/mm ²	1200
0.2% yield offset strenght	RT	N/mm ²	970
Hardness		Rockwell HRC	36,0
		Vickers HV 10	350
Elongation 50 mm		%	8
Welding factor			0,80
Fatigue strength under reversed bending stress*)	RT	N/mm ²	450
Modulus of elasticity	at 20 °C	N/mm ²	210.000
Density		kg/dm ³	7,85
Mean coefficient of thermal expansion	20-100 °C	10 ⁻⁶ m/m°C	11,1
	20-200 °C	10 ⁻⁶ m/m°C	11,9
	20-300 °C	10 ⁻⁶ m/m°C	12,5
	20-400 °C	10 ⁻⁶ m/m°C	12,9
Specific heat		J/g°C	0,46
Thermal conductivity	at 20 °C	W/m°C	46
Specific electric resistance	at 20 °C	Ohm mm/m ²	0,13
Max. permissible operating temperature		°C	400
		°F	750
Tensile strength at max. permissible operating temperature		N/mm ²	850
0.2% yield offset strength at max. permissible operating temperature		N/mm ²	720

Standard dimensions (mm).

Width	Thickness		
	800	1,0	1,2
1.000	1,0	1,2	1,4
1.200	1,0	1,2	1,4
1.250	1,0	1,2	1,4
1.500	-	1,2	-

The above mentioned belt widths are standard widths. If equipped with additional longitudinal welding seam(s) wider belts can be supplied.

*) 50% of the test specimens withstand 2,000,000 load cycles.
 If not otherwise specified, the values given apply at room temperature.
 Subject to change due to technological progress. Errors and omissions excepted.