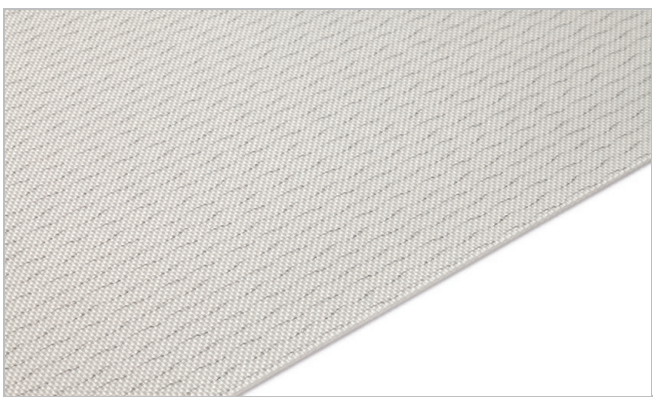
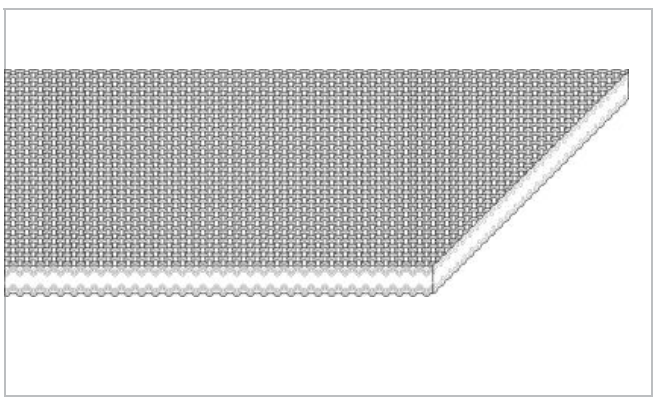
Food Belts
FNI-5E

Main industry segments
Baked snacks, Biscuit and Crackers, Bread, Chocolate, Convenience food, Pastry, Primary food packaging

Applications
Accumulation belt, Diverting belt, Food processing/conveying belt, Packaging belt, Transfer belt

Special features
Easy release, Longitudinal flexibility, Low friction running side, No stick-slip effect





Product Construction / Design	
Conveying side material	Polyester (PET)
Conveying side surface	Impregnated fabric
Conveying side property	Non-adhesive
Conveying side color	White
Traction layer (material)	Polyester (PET)
Number of Fabrics	2
Pulley side material	Polyester (PET)
Pulley side surface	Impregnated fabric
Pulley side property	Non-adhesive
Pulley side color	White

Product characteristics	
Antistatically equipped	Yes
Adhesive free joining method	Yes
Flammability	No specific flammability prevention property
Food suitability, FDA conformance	Yes - Check Document of Compliance (DoC) in our Portal
Food suitability, EU conformance	Yes - Check Document of Compliance (DoC) in our Portal
Halal certified	Yes
Other conformance/approval	Japanese Food Regulation (MHLW Notification No. 370)

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Technical data				
Thickness of belt	0.90	mm	*0.035*	*inch*
Mass of belt (belt weight)	0.90	kg/m²	*0.184*	*lb/sqft*
Tensile force for 1% elongation (k1% static) per unit of width (Habasit standard SOP3-155)	6.5	N/mm	*37*	*lbf/in*
Tensile force for 1% elongation after relaxation (k1% relaxed) per unit of width (Habasit Standard SOP3-155 / EN ISO 21181)	4.4	N/mm	*25*	*lbf/in*
Min. operating temperature admissible (continuous)	-30	°C	*-22*	*°F*
Max. operating temperature admissible (continuous)	80	°C	*176*	*°F*
Coefficient of friction (pulley side / steel driving pulley)	0.15	-		
Coefficient of friction (pulley side / driving pulley with friction cover)	0.35	-		
Coefficient of friction (pulley side / pickled steel slider bed)	0.20	-		
Coefficient of friction (pulley side / phenolic resin slider bed)	0.25	-		
Coefficient of friction (pulley side / stainless steel slider bed)	0.15	-		
Thermal Resistance	0.108	m²*K/W	*0.019*	*Fft²h/Btu*
Thermal Conductivity	0.084	W/m*K	*0.014*	*W/ft*F*
Seamless manufacturing width	4000	mm	*157.48*	*inch*

Joining related properties

Joining method	
Flexproof 10 x 80	Master joining method for standard applications

Link to JDS:

Joining method		Flexproof 10 x 80
Knife-edge (nosebar) radius (minimum)	mm *inch*	4 *0.157*
Pulley diameter (minimum)	mm *inch*	15 *0.59*
Pulley diameter minimum with counter flection	mm *inch*	20 *0.79*
Admissible tensile force per unit of width	N/mm *lbf/in*	11 *63*
Admissible tensile force per unit of width at max. operating temperature	N/mm *lbf/in*	4.4 *25*
Slider bed suitable		Yes
Carrying rollers suitable		Yes
Troughed installation suitable		No
Powerturns / curved installations		No
Low noise applications		No
Metal detector suitable		Yes

All data are approximate values under standard climatic conditions: 23°C/73°F, 50% relative humidity (DIN 50005/ISO 554). Limited representative testing based on a standard configuration is carried out to estimate minimum pulley diameters. Please contact Habasit for specific guidance regarding non-standard applications, including, but not exclusively, when profiles or cleats are used, or if the belt working temperature is close to the limits listed in this document.

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Chemical resistance
Link to 'Chemical resistance information': https://rims.habasit.com

Mode of use or conveyance
Horizontal

Calculations
For most applications calculation is not required. Should you still need a calculation: please ask Habasit.

Recommendation
Do not go below initial elongation (epsilon) ~ 0.3%, Install the slack belt and tension until running perfectly under the full belt load

Store spare belts in a cool and dry place and if possible in their original packaging. Protect spare belts from sunlight/UV-radiation/dust/dirt! Check Link for Storage requirements:
"https://tdm.habasit.com/pds/en-us/Storage%20of%20Habasit%20material.pdf"

Not suitable for wet operations combined with increased temperatures, This product has not been tested according to ATEX standards (atmospheres with explosion risk - ATEX 95 regulation or EU directive 2014/34/EU) and therefore is subject to user's analysis in the respective environment

Group	Fabric Surface Belts Impregnated Belts
Item number	H010100424

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