

BANCORD ROUND BELT/V-BELT

They are long belts that use polyurethane "Bancollan" as a material and can be easily joined by heat adhesion. The light-duty machinery industry has recently been developing considerably and requires more convenient and higher-performance belts. Bancord has been highly evaluated by users as an industrial material as well as a belt that has foreseen the needs of the times since its development. Please make use of the convenience and excellent performance of Bancord for your designs.



FEATURES

FLEXIBLE EFFECTIVE LENGTH

As it can be simply and strongly joined by heating, a belt with a required effective length can be obtained in an in stant. As the effective length can be freely selected regard less of standards, it allows for a design that makes most of the performance of the machine.

SIMPLE INSTALLATION AND MANAGEMENT

It can be installed without disassembling the machine and requires little management, such as troublesome tension adjustment.

MULTI-SHAFT TRANSMISSION AND THREE DIMENTIONAL TRANSMISSION ARE POSSIBLE (ROUND BELT)

As the cross section has no direction, the belt allows multi-shaft transmission and three-dimensional complex transmission such as direction changes by idler pulleys.

EXCELLENT MECHANICAL CHARACTERISTICS

As it uses Bancollan (polyurethane), which has excellent abrasion resistance and tear resistance, it provides excellent performance as a belt as well as an industrial material.

Puct		Lise example							Cross-	-sectional diameter (mm)								
Produ	Compound	(application)	Color tone	1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	12	15
	#480 General		Orange (standard)															
		General-purpose and	Semi-transparent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Black															
	#485N	Roller conveyor driving	Semi-transparent	—	—	—	0	—	0	0	0	—	—	—	—	—	—	_
	#485T	Roller conveyor driving (durable and abrasion-resistant)	Semi-transparent	—	-	—	—	—	0	0	0	—	—	—	—	—	—	—
	#485RB	Paper and food stuff conveyance *1	Green	—	-	_	0	_	0	0	0	_	0	—	—	_	_	_
	#489		White (standard)															
븡	#490 Abrasion-resistant (heavy-duty)	Abracian registant	Semi-transparent															
Round be		Blue				0	$ \circ$		0	0	$ \circ$	$ \circ$	0	$ \circ $			—	
			Red											1				
			Green															<u> </u>
	#494C (Charge prevention)	Semi-conductor field	Black	_	0	0	—	-	0	0	—	_	-	—	—	_	_	—
	Winding length				#480200 m/winding each#485N200 m/winding each#485T200 m/winding each#485RB200 m/winding each#489100 m/winding each#490200 m/winding eachtribu#490C200 m/winding each					100 m/winding each *2								
	Type M (#480/#495)			Top width (mm) Thickness (mm)		1 (mm) 5 (mm) (°)	10.0 5.5 40		-									
±	T	Top width	(#480)	Тор	widtł	1 (mm)		12.7										
-be	Type A (#480/#495)	Angle	(#480) White	Thic	kness	5 (mm)	8.0		100 m/winding each									
>				Angle (°)		40												
	Type B		(#495)	Тор	Fop width (mm)			16.7										
	(#480/#495)			Thic	kness	5 (mm)		10.3										
	(" 100/ " + 55)			Angle (°)		40												

*1 Grain surface specification

*2 For [#480 Cross-sectional dia. 15 mm] and [#494C Cross-sectional dia. 5 mm], 50

- *We perform joining if requested. (Only winding for a line diameter of 15 mm) The perimeters that can be joined are 125 mm or more for a line diameter of up to 2.5 mm and 50 times the line diameter or more for a line diameter of 3 mm or more.
- * #480 (not including standard products) and #490 are made to order; hence, for delivery period and lots, please contact our sales company or distributer.

* For joining of belts with a line diameter of 15 mm, please contact our sales company or distributor.

* Passed Notice No. 370 of the Ministry of Health and Welfare concerning food hygiene (not including #480 black and #494C).

TYPE/SIZE

MECHANICAL PROPERTIES

Bancord is widely used as a general industrial material, such a power transmission belt, for its excellent mechanical properties. The main mechanical properties of Bancord are as follows.

Characteristics	#480	#485N	#485T	#485RB	#489	#490	#494C	#495 (V type)
Color tone	Orange, semi-transparent, black	Semi-transparent	Semi-transparent	Green	White	Semi-transparent, blue, red, green	Black	White
Hardness (JIS-Hs)	85°	86°	86°	86°		90°	94°	95°
Specific gravity	1.23	1.23	1.23	1.23		1.23	1.23	1.23
Tensile modulus 3% (GPa)	2.9×10 ⁻⁴	2.9×10 ⁻⁴	2.9×10 ⁻⁴	3.3×10 ⁻⁴	9.	8×10 ⁻⁴	5.6×10 ⁻⁴	1.7×10 ⁻³
Tensile modulus 4% (GPa)	3.9×10 ⁻⁴	3.9×10 ⁻⁴	3.9×10 ⁻⁴	4.4×10 ⁻⁴	1.0)8×10 ⁻³	8.3×10 ⁻⁴	2.2×10 ⁻³
Tensile modulus 5% (GPa)	4.9×10 ⁻⁴	4.9×10 ⁻⁴	4.9×10 ⁻⁴	5.6×10 ⁻⁴	1.4	7×10 ⁻³	1.1×10 ⁻³	2.6×10 ⁻³
Tensile modulus 6% (GPa)	6.4×10 ⁻⁴	6.4×10 ⁻⁴	6.4×10 ⁻⁴	7.3×10 ⁻⁴	1.5	52×10 ⁻³	1.4×10 ⁻³	2.8×10 ⁻³
Tensile modulus 7% (GPa)	6.9×10 ⁻⁴	6.9×10 ⁻⁴	6.9×10 ⁻⁴	7.9×10 ⁻⁴	1.7	72×10-3	1.7×10 ⁻³	3.1×10 ⁻³
Tensile modulus 100% (GPa)	4.9×10 ⁻³	5.4×10 ⁻³	3.9×10 ⁻³	5.4×10 ⁻³	7.8	35×10 ⁻³	8.8×10 ⁻³	9.8×10 ⁻³
Tensile break strength (GPa)	$2.94 imes10^{-2}$ or more	2.94×10^{-2} or more	$2.94 imes 10^{-2}$ or more	2.94×10^{-2} or more	2.94>	$< 10^{-2}$ or more	$1.96 imes 10^{-2}$ or more	3.23×10^{-2} or more
Tensile break elongation rate (%)	450 or more	300 or more	400 or more	300 or more	350) or more	400 or more	350 or more
Linear expansion factor (1°C)	2.6×10 ⁻⁴	2.6×10 ⁻⁴	2.6×10 ⁻⁴	2.6×10 ⁻⁴	2.	6×10 ⁻⁴	2.6×10 ⁻⁴	2.6×10 ⁻⁴

Round belt

Cross-sectional diameter (mm)	1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	11	12	15
Tensile strength (N/pc)	60	100	160	230	310	410	640	930	1150	1500	1900	2360	2850	3390	5300

V-belt

Туре	М	А	В
Tensile strength (N/pc)	1450	2590	4400

WATER RESISTANCE

Bancord is especially studied and improved in water resistance; hence, it can be used for a very long period of time even under high humidity.

Variation per day in tensile strength under water (Material #489)									
Immersion period (day)	20	30	50	70					
Remaining strength rate (%)	99	98	96	91					

Note 1) The samples were immersed under water at a temperature of 40°C with 5% stretch.

OIL RESISTANCE AND CHEMICAL RESISTANCE

The following table shows a rough guide of applicability when oil or chemicals adhere to the belt at normal temperature.

Oil/chemical name	Applicability	Oil/chemical name	Applicability	Food name	Applicability
Oil-resistant ASTM #1	0	Strong acid	×	Water	0
Oil-resistant ASTM #3	0	Weak acid	0	Vinegar	0
Gasoline	0	Sodium hypochlorite	\bigtriangleup	Soy sauce	0
Volatile oil	0	Sodium hypochlorite (600 ppm)	0	Sauce	0
Light oil	0	Ethanol	0	Syrup	0
Heavy oil O		Acetone	×	Cream	0
Cutting oil $ riangleq$		Benzine	×	Olive oil	0
Diesel oil O		Methanol	\bigtriangleup	Edible oil (salad oil)	0
Rust-inhibiting oil	\bigtriangleup	Toluene (Toluol)	×	Butter	0
Machine oil	\bigtriangleup			Sugar	0
Caustic soda (NaOH) solution (10%)	\bigtriangleup	\bigcirc : Not affected at all.		Flour	0
Strong alkali	×	\triangle : Affected to some extent.		Salt	0
Weak alkali	0	 (There is a possibility of embrittlement, Bread 		Bread	0
Soap	0	discoloration, or swelling	0		
Hydrochloric acid (10%)	0	×: Completely affected.		Meat	0
Acetic acid	×			Fish	0

* If the belt is completely affected or you use the belt at a higher-temperature range than normal temperature, please consult our sales company or distributor.