

Power Transmission and Conveyor Belt

NittaBeltPoly



NITTA

B-PB-03



Nitta Corporation has developed “ NittaBeltPoly ” to meet the demands of the customers in the power transmission field, offering a wide variety of types.

These products have delivered numerous results in power transmission for industrial machinery used in the textile, paper manufacturing and flour-milling industries. Also for Nitta has also provided the best types of NittaBeltPoly for conveyance used for printing and box-making machines.

NittaBeltPoly, which is basically made up of a combination of thin and strong polyamide film and highly abrasion-resistant special rubber, is widely used in industry.

Nitta’s mission is to deliver high quality and reliable products and meet the needs of the customers in the fast-changing market environment.

CONTENTS	
	Page
■ Features	2
■ Types and Properties	3 to 6
■ Design Materials	7 to 10
Biaxial Power Transmission Design	7 to 9
Belt Length Calculation Formula	10
Pulley Shape	10
■ Precautions for Use	11 to 13
Troubleshooting for Power Transmission Problems	13
■ For Safety Use of NittaBeltPoly	14

Features

1 Abrasion resistance

Excellent abrasion resistance achieved due to the stable friction coefficient obtained by using the special synthetic rubber (NBR: Acrylonitrile Butadiene Rubber)
(Taber Abrasion Test: 40 mg/1000 times)
*Abrasive wheel used: H22, Load: 5N

2 High-tensile tension member

High-quality stretched polyamide film is used as a tension member to provide high tensile strength.
(Tensile strength of the tension member made of polyamide film: 300 Mpa (3,000 kgf/cm²) or more)

3 High-speed power transmission

High-flex resistance and high-speed power transmission obtained by using a thin and strong tension member to reduce the effect of centrifugal forces
(Up to 70 m/s available)

4 Antistatic treatment

NittaBeltPoly (except for some types) is subjected to antistatic treatment to obtain low electrostatic potential.
(500 V or less)

5 Wide variety of types

Wide variety of types available to meet the demands in all fields including power transmission and conveyance

6 Easy endless processing

On-site endless processing is available by using Nitta's special tools and adhesives.

Types and Properties

Major Applications	Properties	Belt Type		Total Thickness (mm)	Tension Member Thickness (mm)	Weight (kg/m ²)	
General power transmission Paper feed section of the printing machine Plywood conveyor	Moderate sliding properties on both sides	SG	250	0.8	0.2	0.8	
			350	0.95	0.35	0.9	
			500	1.1	0.5	1.1	
			750	1.35	0.75	1.4	
			1000	1.6	1.0	1.7	
Machine tools (automatic lathes, etc.) Dryers (cylinder drying machine, etc.) Small to medium wood working machines Small centrifugal pumps and blowers	Thin rubber especially suitable for flexing/high-speed operation	L	250	1.25	0.2	1.4	
			350	1.4	0.35	1.6	
			500	1.55	0.5	1.8	
			750	2.2	0.75	2.5	
			1000	2.45	1.0	2.8	
			1500	2.95	1.5	3.4	
Power transmission in industrial machinery (fans, pumps, etc.) Sawmill machines (chippers, etc.) Paper working machines (coaters, etc.) Other power transmissions Cut-proof conveyors (thin-plate conveyors, etc.)	Standard type Suitable for normal operating conditions	M	250	2.2	0.2	2.4	
			350	2.35	0.35	2.6	
			500	2.5	0.5	2.7	
			750	2.75	0.75	3.0	
			1000	3.0	1.0	3.3	
			1500	3.5	1.5	4.0	
Compressors Rolling machines Paper tube winding machines Abrasion-resistant conveyors (building material conveyors, etc.)	Highly abrasion/impact resistant thick cover rubber is used. Suitable for severe operating conditions	H	500	3.5	0.5	3.8	
			750	3.75	0.75	4.1	
			1000	4.0	1.0	4.4	
			1500	4.5	1.5	5.0	
			2000	5.0	2.0	5.6	
		MH	2500	5.0	2.5	6.0	
			3000	5.5	3.0	6.5	
			4000	6.5	4.0	7.6	

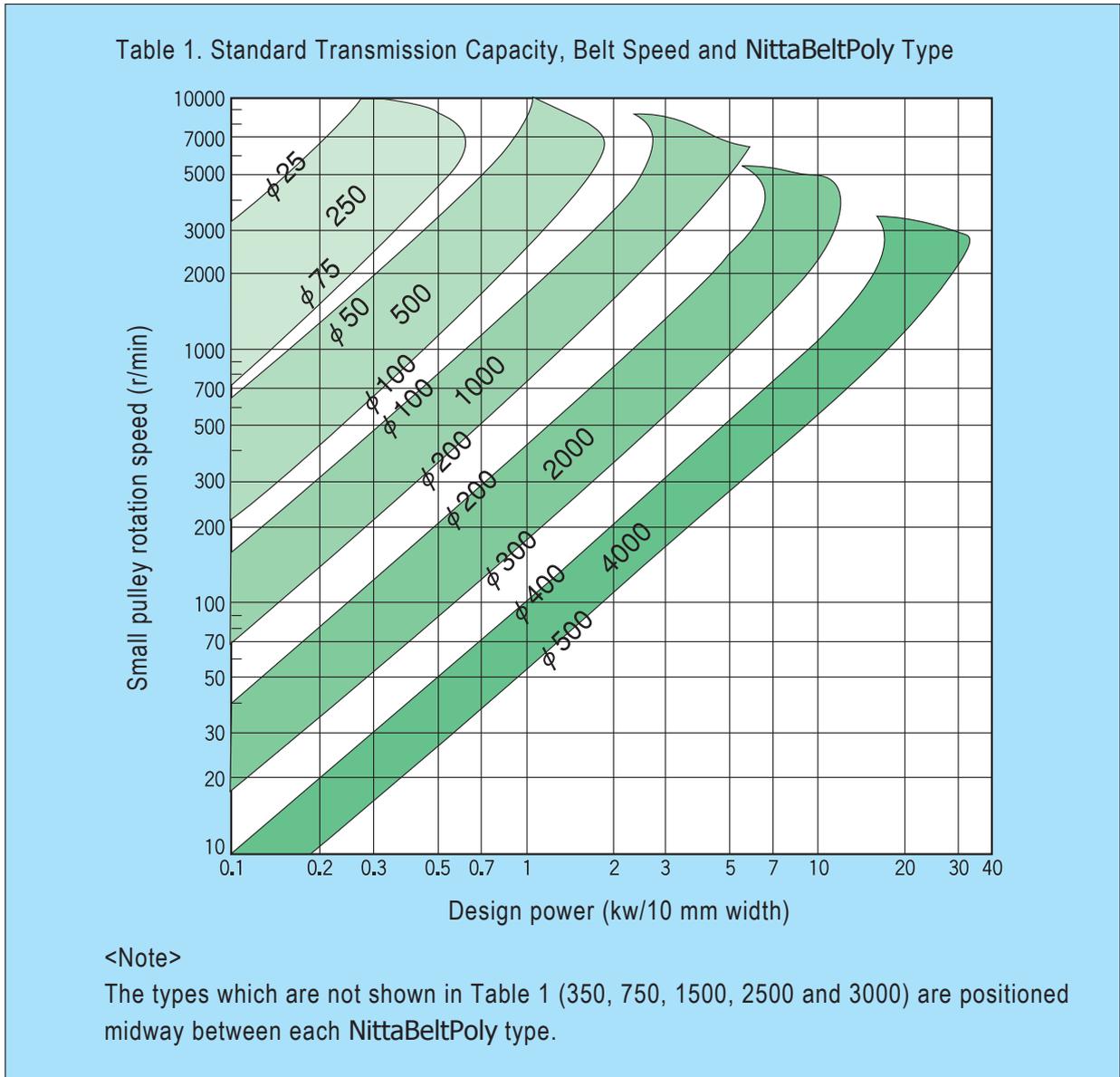
	Cover Material								Axial load under stable conditions (N/mm width; kgf/cm width)		Minimum pulley diameter (mm)		Antistatic property	Standard maximum width (mm)	Temperature range for continuous use (°C) (For intermittent use)
	Top surface				Bottom surface				At 2% elongation	At 1% elongation	For power transmission	For conveyance			
	Material	Surface configuration	Color	Friction coefficient	Material	Surface configuration	Color	Friction coefficient							
	NBR	Weave	Green	0.3 to 0.4	NBR	Weave	Black	0.3 to 0.4	6.0	3.0	25	20	○	300	-20 to +80 (-30 to +100)
	NBR	Weave	Green		NBR	Weave	Black		10.5	5.2	35	30	○	300	
	NBR	Weave	Green		NBR	Weave	Black		15.0	7.5	50	40	○	300	
	NBR	Weave	Green		NBR	Weave	Black		22.5	11.2	75	50	○	300	
	NBR	Weave	Green		NBR	Weave	Black		30.0	15.0	100	60	○	300	
	NBR	Weave	Blue	0.5 to 0.6 (Against iron)	NBR	Weave	Black	0.5 to 0.6 (Against iron)	6.0	3.0	25	20	○	300	-20 to +80 (-30 to +100)
	NBR	Weave	Blue		NBR	Weave	Black		10.5	5.2	35	30	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		15.0	7.5	50	40	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		22.5	11.2	75	50	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		30.0	15.0	100	60	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		45.0	22.5	150	90	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		60.0	30.0	200	120	○	300	
	NBR	Weave	Blue	0.5 to 0.6 (Against iron)	NBR	Weave	Black	0.5 to 0.6 (Against iron)	6.0	3.0	25	25	○	300	-20 to +80 (-30 to +100)
	NBR	Weave	Blue		NBR	Weave	Black		10.5	5.2	35	35	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		15.0	7.5	50	40	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		22.5	11.2	75	50	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		30.0	15.0	100	60	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		45.0	22.5	150	90	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		60.0	30.0	200	120	○	300	
	NBR	Weave	Blue	0.5 to 0.6 (Against iron)	NBR	Weave	Black	0.5 to 0.6 (Against iron)	15.0	7.5	50	50	○	300	-20 to +80 (-30 to +100)
	NBR	Weave	Blue		NBR	Weave	Black		22.5	11.2	75	60	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		30.0	15.0	100	75	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		45.0	22.5	150	120	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		60.0	30.0	200	160	○	300	
	NBR	Weave	Blue	0.5 to 0.6 (Against iron)	NBR	Weave	Black	0.5 to 0.6 (Against iron)	75.0	37.5	250	—	○	300	-20 to +80 (-30 to +100)
	NBR	Weave	Blue		NBR	Weave	Black		90.0	45.0	300	—	○	300	
	NBR	Weave	Blue		NBR	Weave	Black		120.0	60.0	400	—	○	300	

Major Applications	Properties	Belt Type		Total Thickness (mm)	Tension Member Thickness (mm)	Weight (kg/m ²)	
Corrugated board machines (Paper feeding to and discharging from the rotary cutter)	Highly scratch/abrasion resistant surface material used	CBX-7S		4.2	0.75	2.5	
Box making machines (Counter eject)	High gripping force and abrasion resistance realized	CBE-20		Approx.7.0	—	5.9	
For conveying cardboard boxes	Table-supported high speed conveyance possible	CBG-7S		3.5	0.75	3.5	
Conveying cardboard boxes Conveying plywood	High conveyance capacity achieved due to the rough top conveyor belt Suitable for severe operating conditions	NRT	0	Approx.5.5	—	4.8	
			100	Approx.4.5	—	3.6	
			300	Approx.6.5	—	6.5	
			500	Approx.6.0	0.5	5.6	
		RT	300	Approx.7.0	—	6.5	
Printer paper feed	Top surface with high friction coefficient Bottom surface with high sliding properties	IRTA	350	1.15	0.35	1.2	
		KCS	350	1.1	0.35	0.8	
Folder gluer Conveying plywood	High conveyance capacity achieved due to rubber properties	XH	500-3	3.0	0.5	3.4	
			500-3.5	3.5	0.5	3.9	
			500-4	4.0	0.5	4.3	
			500-6	6.0	0.5	7.4	
			750-4	4.0	0.75	4.4	
			1000-4	4.0	1.0	4.4	
Table-supported conveyor Stopper conveyor	Excellent sliding on both surfaces	TTA	500N	1.3	0.5	1.2	
			1000N	1.8	1.0	1.7	
		TTB	1000	2.8	1.0	2.5	
Table-supported conveyor	Excellent sliding on one surface	GLTB	500	2.05	0.5	2.0	
			1000	2.75	1.0	2.6	
		GMTB	1000	3.0	1.0	2.9	
Sloping conveyor	High conveyance capacity achieved due to the rough surface	TW	250	1.8	0.2	1.5	
			500	2.1	0.5	1.9	
		TWH	500	3.8	0.5	3.8	

	Cover Material								Axial load under stable conditions (N/mm width; kgf/cm width)		Minimum pulley diameter (mm)		Antistatic property	Standard maximum width (mm)	Temperature range for continuous use (°C) (For intermittent use)	
	Top surface				Bottom surface				At 2% elongation	At 1% elongation	For power transmission	For conveyance				
	Material	Surface configuration	Color	Friction coefficient	Material	Surface configuration	Color	Friction coefficient								
	Artificial leather	Flat and smooth	Gray	0.4 to 0.5 (Against cardboard)	Artificial leather	Flat and smooth	Gray	0.2 to 0.25 (Against SUS)	—	15.0	—	75	—	300	-20 to +80	
	NBR	Rough top	Blue	Approx. 1.0 (Against cardboard)	Polyester	Canvas	Black	0.2 to 0.25 (Against SUS)	—	6.0 (0.5%)	—	100	○	300	-20 to +80	
	NBR	Rough	Blue	0.7 to 0.8 (Against cardboard)	Polyamide	Canvas	Blue	0.2 to 0.25 (Against SUS)	—	15.0	—	75	○	300	-20 to +80	
	NBR	Rough top	Blue	Approx. 1.0 (Against cardboard)	Polyester	Canvas	White	0.2 to 0.25 (Against SUS)	—	1.3	—	100	○	300	-20 to +80 (-30 to +100)	
	NBR	Rough top	Blue	Approx. 1.0 (Against cardboard)	Polyester	Canvas	White	0.2 to 0.25 (Against SUS)	—	6.0 (0.5%)	—	50	○	300		
	NBR	Rough top	Blue	Approx. 1.0 (Against cardboard)	Polyester	Canvas	White	0.2 to 0.25 (Against SUS)	—	6.0 (0.5%)	—	100	○	300		
	NBR	Rough top	Blue	Approx. 1.0 (Against cardboard)	NBR	Canvas	Black	0.2 to 0.25 (Against SUS)	—	7.5	—	90	○	300		
	NBR	Rough top	Blue	Approx. 1.0 (Against cardboard)	Polyester	Canvas	White	0.2 to 0.25 (Against SUS)	—	6.0 (0.5%)	—	100	○	300		
	NBR	Weave	Green	0.5 to 0.6	Polyamide	Canvas	Blue	0.2 to 0.3	10.5	5.2	—	30	○	300	-20 to +80	
	NBR	Weave	Black	0.3 to 0.4	Polyamide	Canvas	Blue	0.2 to 0.3	10.5	5.2	—	30	○	300	(-30 to +100)	
	NBR	Weave	Blue	0.8 to 0.9	NBR	Weave	Blue	(Against SUS)	15.0	7.5	—	50	○	300	-20 to +80 (-30 to +100)	
	NBR	Weave	Blue		NBR	Weave	Blue		0.7	15.0	7.5	—	55	○		300
	NBR	Weave	Blue		NBR	Weave	Blue		to	15.0	7.5	—	60	○		300
	NBR	Weave	Blue		NBR	Weave	Blue		0.8	15.0	7.5	—	80	○		300
	NBR	Weave	Blue		NBR	Weave	Blue		(Against SUS)	22.5	11.2	—	75	○		300
	NBR	Weave	Blue		NBR	Weave	Blue			30.0	15.0	—	75	○		300
	Polyamide	Canvas	Blue	0.2 to 0.3	Polyamide	Canvas	Blue	0.2 to 0.3	15.0	7.5	—	40	—	300	-20 to +80 (-30 to +100)	
	Polyamide	Canvas	Blue	0.2 to 0.3	Polyamide	Canvas	Blue	0.2 to 0.3	30.0	15.0	—	60	—	300		
	Polyamide	Canvas	Blue	0.2 to 0.3	Polyamide	Canvas	Blue	0.2 to 0.3	30.0	15.0	—	60	—	300		
	NBR	Weave	Blue	0.5 to 0.6	Polyamide	Canvas	Blue	0.2 to 0.3	15.0	7.5	—	40	○	300	-20 to +80 (-30 to +100)	
	NBR	Weave	Blue	0.5 to 0.6	Polyamide	Canvas	Blue	0.2 to 0.3	30.0	15.0	—	60	○	300		
	NBR	Weave	Blue	0.5 to 0.6	Polyamide	Canvas	Blue	0.2 to 0.3	30.0	15.0	—	60	○	300		
	NBR	Rough weave	Blue	—	NBR	Weave	Black	0.5 to 0.6	6.0	3.0	—	25	○	300	-20 to +80 (-30 to +100)	
	NBR	Rough weave	Blue	—	NBR	Weave	Black	0.5 to 0.6	15.0	7.5	—	40	○	300		
	NBR	Rough weave	Blue	—	NBR	Weave	Black	0.5 to 0.6	15.0	7.5	—	40	○	300		

1. Biaxial Power Transmission Design

(1) Select the belt type according to the design power and the small pulley rotation speed shown in Table 1 below.



(2) Calculate the belt speed (V) by using the pulley diameter and rotation speed.

$$v \text{ (m/s)} = \frac{\pi \cdot d \cdot n}{60 \times 1000}$$

d: Drive pulley diameter (mm)
n: Drive rotation speed (mm)

(3) Calculate the effective tension (Te) by using the transmission power and the belt speed.

$$T_e \text{ (N)} = \frac{1000 \times P}{v}$$

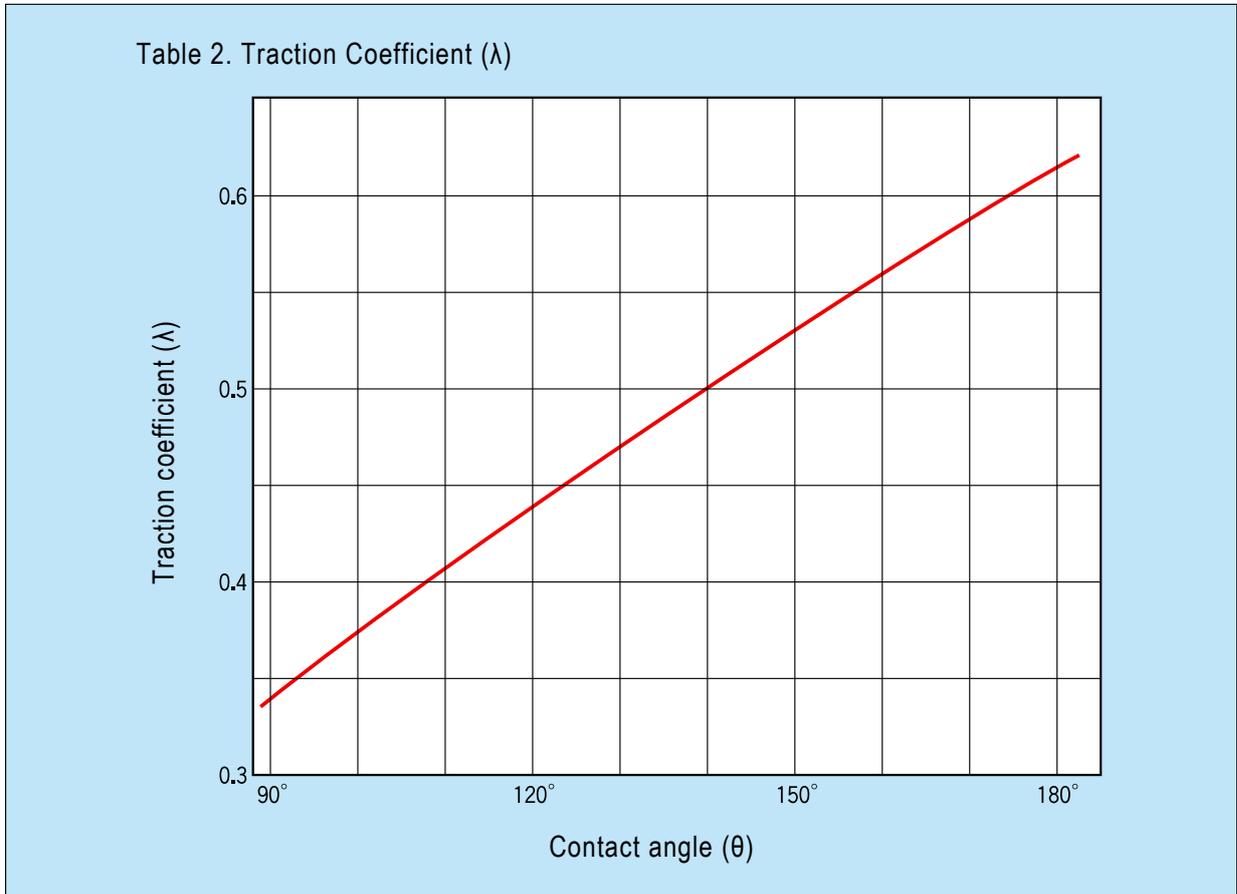
P: Transmission power (kw)

(4) Calculate the pulley contact angle (θ) (for the open belt drive).

$$\theta \text{ (deg)} = 180^\circ - \frac{57(D - d)}{C}$$

D: Large pulley diameter (mm)
d: Small pulley diameter (mm)
C: Center distance (mm)

(5) Obtain the traction coefficient (λ) from Table 2 below.



(6) Select the load reserve factor (K) from Table 3 below.

Table 3. Load Reserve Factor (K)

Use conditions	Normal condition	Environment with oil and dust
Excessively light start-up load; small load fluctuation (Belt conveyors and small centrifugal pumps)	1.3	2.4
Light start-up load; small load fluctuation (Printing machines and wood working machines)	1.5	2.7
Heavy start-up load; large load fluctuation (Printing machines, pressing machines and rolling machines)	2.0	3.6

(7) Calculate the approximate axial load ($2T_o$).

$$2T_o \text{ (N)} = T_e \times \frac{K}{\lambda}$$

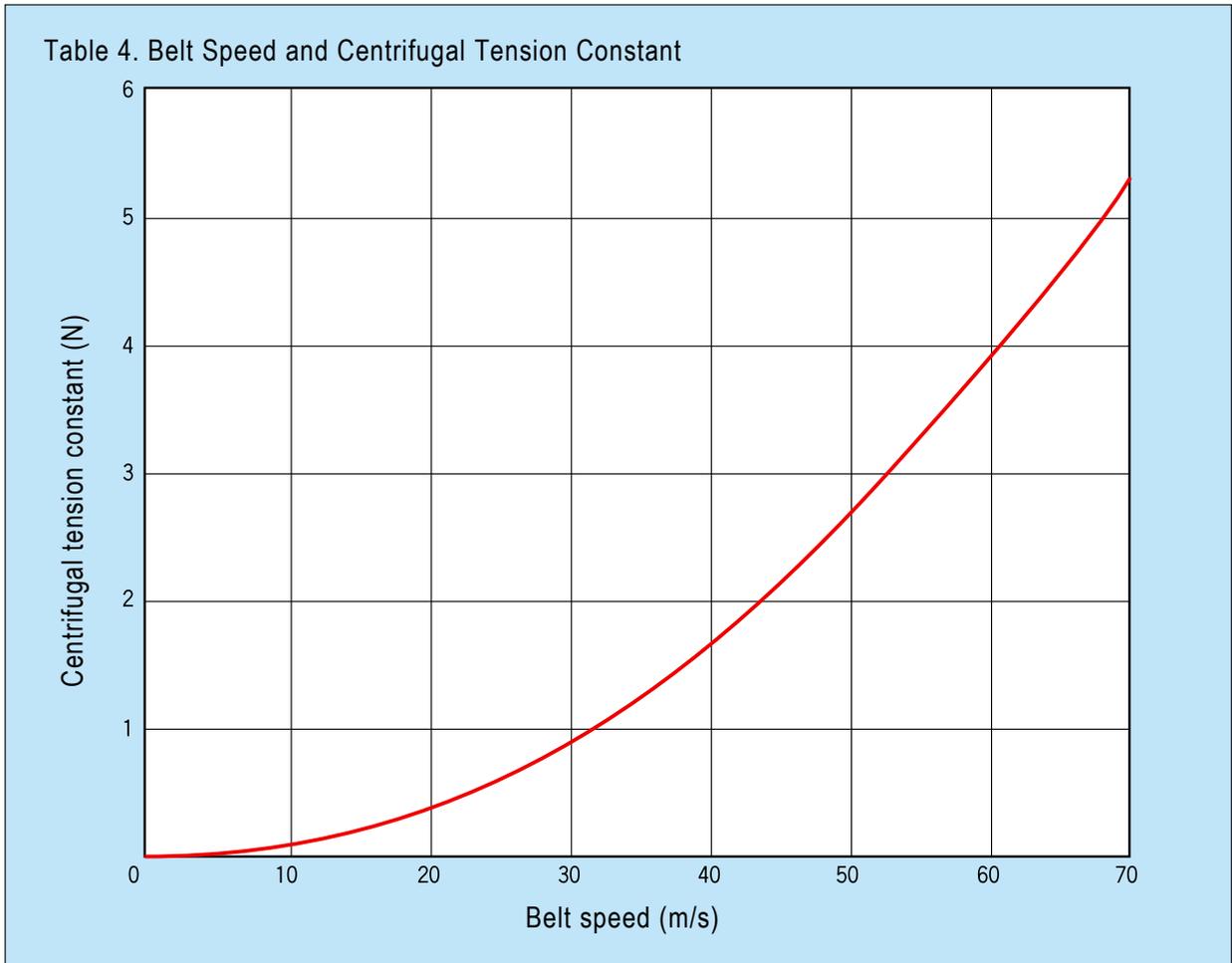
(8) Calculate the belt width limit (b).

$$b \text{ (mm)} \leq \frac{(b_p - 10)}{1.1} \quad b_p: \text{Pulley width (mm)}$$

Round the calculated belt width to the nearest 5 mm.

(9) Obtain the centrifugal constant from Table 4 below. Then calculate the centrifugal tension (t_c) by the following calculation formula.

<Calculation formula> Centrifugal tension (t_c) = Centrifugal tension constant x Belt thickness (h) (mm)



(10) Calculate the axial load ($2t_o$) per unit width (N/mm width).

$$2t_o(\text{N/mm width}) = \frac{2T_o}{b} + 2t_c$$

(11) Calculate the elongation rate (ϵ) of the selected belt.

$$\epsilon = \frac{2t_o}{2t_o(2\%)} \times \epsilon'' \quad \begin{array}{l} \epsilon'' : \text{Standard elongation rate (2 \%)} \\ 2t_o(2\%) : \text{Axial load under stable conditions (N/mm width) at 2 \% elongation} \end{array}$$

The allowable belt elongation rate is 1 - 3 %.

When the belt elongation rate is outside this range, take the following measures.

a. Change the belt type. b. Change the belt width.

(12) Calculate the axial load (F) by using the belt tension.

$$\text{During operation stop: } F_s (\text{N}) = 2t_o \times \frac{\epsilon}{2} \times b \times \sin \frac{\theta \times \pi}{2 \times 180^\circ}$$

$$\text{During operation: } F_r (\text{N}) = \left(2t_o \times \frac{\epsilon}{2} - 2t_c \right) \times b \times \sin \frac{\theta \times \pi}{2 \times 180^\circ}$$

(Note) For multiaxial power transmission and conveyance, consult us.

2. Belt Length Calculation Formula

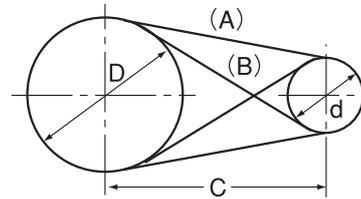
Calculate the inner peripheral length (Li) as follows:

Inner peripheral length (A)

$$L_i(\text{mm}) = 2C + \frac{\pi}{2}(D+d) + \frac{(D-d)^2}{4C}$$

Inner peripheral length (B)

$$L_i(\text{mm}) = 2C + \frac{\pi}{2}(D+d) + \frac{(D+d)^2}{4C}$$



The length of NittaBeltPoly is determined according to the pitch length (Lc). Convert “Li” obtained above into “Lc” .

$$\text{Pitch length } L_c = L_i + \pi h \quad h: \text{Belt thickness (mm)}$$

When the center distance is fixed and there is no tension pulley in the device, shorten the belt length by the elongation rate as shown in the calculation formula below.

$$\text{Belt length (mm)} = \frac{L_c}{1+E} \quad E = \frac{\varepsilon}{100} \quad \varepsilon: \text{Elongation rate (\%)}$$

(Note) Please inform us of the pulley diameter and the coordinate; we will calculate the belt length for multiaxial power transmission.

3. Pulley Shape

(1) Calculate the pulley width (bp) from the following formula.

$$b_p(\text{mm}) = 1.1b + 10\text{mm} \quad b = \text{Belt width (mm)}$$

(2) Obtain the pulley crown (hc) from Table 5.

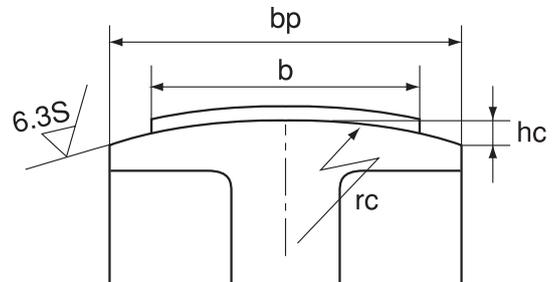
Table 5. Standard Crown hc (mm)

Pulley diameter \ Pulley width	30~150	151~300	301~700	701~1000	1001~1500	1501 or more
30~125	0.8	1.2	1.3	1.7	2.0	2.5
126~260	1.0	1.3	1.5	2.0	2.3	2.8
261~400	1.1	1.4	1.6	2.2	2.5	3.0

(3) Calculate the curvature radius (rc) from the following formula.

$$r_c(\text{mm}) = \frac{b_p^2}{8h_c}$$

(4) The pulley surface finish is required to be 6.3S or more.



(5) Belt speed and pulley material

Belt speed	30 m/s or less	30 to 50m/s	50 m/s or more
Pulley material	Cast iron, aluminum, mild steel	Cast iron or mild steel	Mild steel

(6) As a rule, do not attach a flange to the pulley.

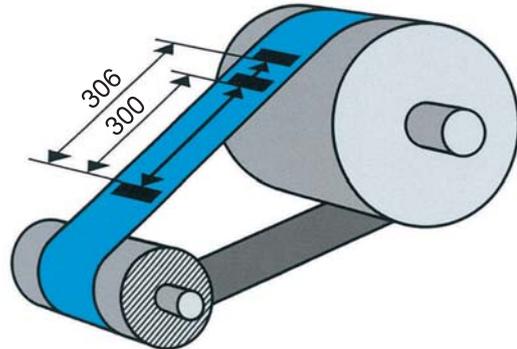
Precautions for Use

The followings are the precautions for using NittaBeltPoly.

Belt Tension

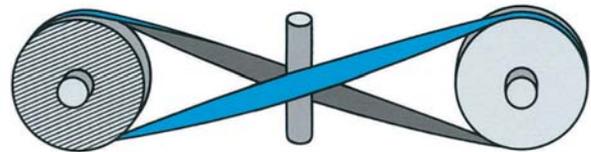
Measure the tension mark and stretch the belt to obtain the specified elongation rate. Rotate the belt once or twice to stretch it uniformly and check the tension mark.

Elongation rate of 2.0 %



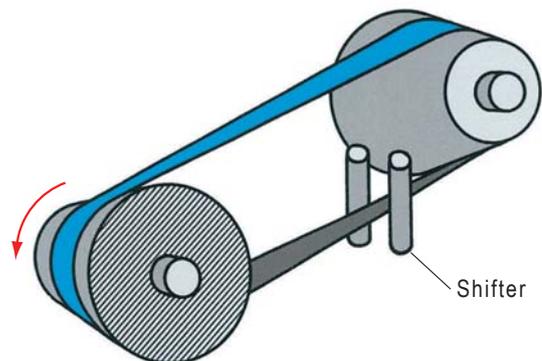
Crossed Belt Drive

NittaBeltPoly is highly abrasion resistant. In order to lengthen the belt life, insert a rotator at the intersection of the belt.



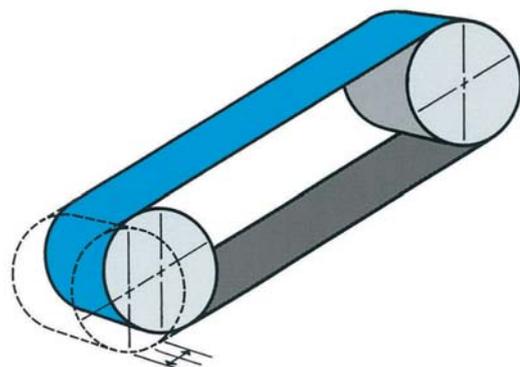
Belt Shifters

Use rotary belt shifters. If the shifters do not rotate, belt abrasion is accelerated. Set the shifters at the positions where the belt enters the driven pulley. When selecting the belt type, consider the shifting property as well as the transmission calculation.



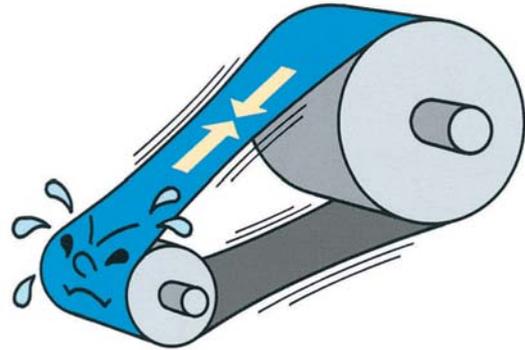
Attaching the Belt

When attaching the belt, use a center-distance adjuster. If the adjuster is not available, cover the pulley edges with waste cloth, etc. to prevent damage to the belt.



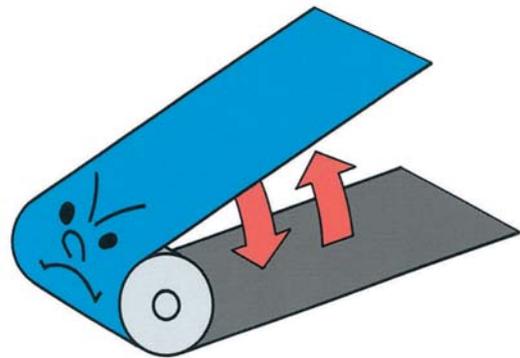
Belt Elongation Rate

The maximum allowable elongation rate for NittaBeltPoly is 3 %.
When the belt elongation rate is more than 3 %, use the belt type of one rank higher or the wider type.



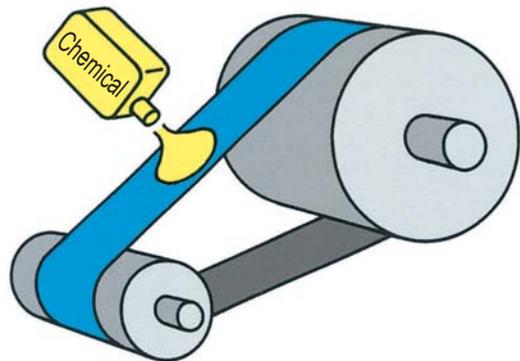
Minimum Pulley Diameter

The minimum pulley diameters of NittaBeltPoly for conveyance are listed in “Types and Properties” at P. 3 to 6. When the belt speed is 5 m/s or less, the minimum pulley diameter for conveyance is available.



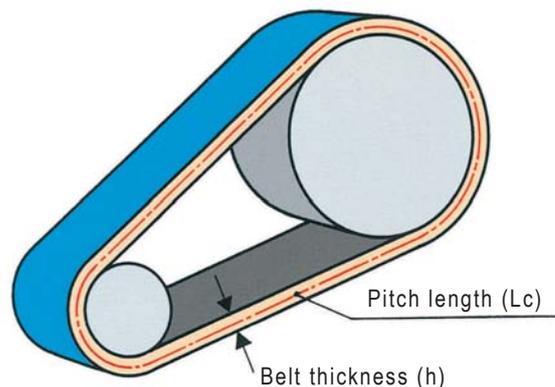
Resistance to Chemicals

NittaBeltPoly is not affected by wetting and drying, machine oil, steam, fat, benzine, etc. However, be careful that NittaBeltPoly is affected by concentrated acids, phenols, ketones and alcohol.



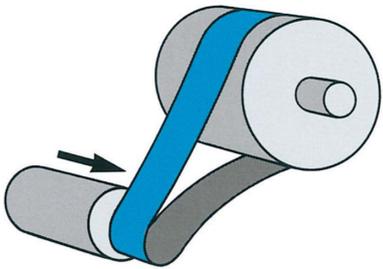
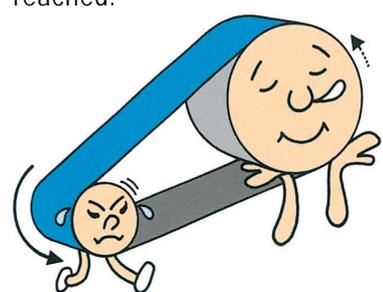
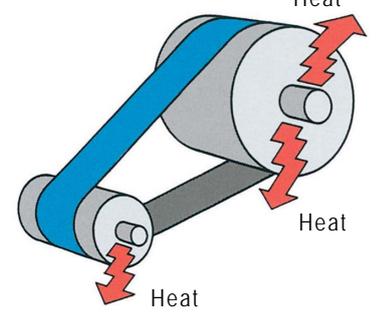
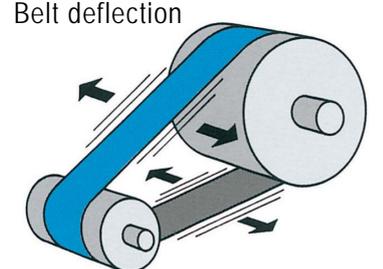
Belt Length

NittaBeltPoly is manufactured according to the pitch length. When ordering the belt, specify the pitch length. When ordering the belt to be set at a location where the center distance is not adjustable, specify the pitch length shortened in advance by the specified elongation rate. (See P. 10.)



■ Troubleshooting for Power Transmission Problems

When any of the following failures occurs, troubleshoot as follows:

Failure	Failure Diagnosis	Troubleshooting
<p>The belt comes off the pulley.</p> 	<p>The belt deviates at start-up and then returns</p>	<ul style="list-style-type: none"> • The starting torque is too high; tighten the belt further or lower the starting load.
	<p>Normal when the load is low; the belt comes off when the load becomes high.</p>	<ul style="list-style-type: none"> • The load is high; tighten the belt further or lower the load.
	<p>The belt comes off even when the load is low.</p>	<ul style="list-style-type: none"> • Correct the pulley parallelism. • Tighten the part where the belt comes off. • If the tension pulley is used, tilt its axis.
<p>The specified speed is not reached.</p> 	<p>When further tightening the belt, the rotation speed does not increase.</p>	<ul style="list-style-type: none"> • Measure the pulley diameter. When the speed ratio is large, add the belt thickness to the pulley diameter. • Measure the rotation speed of the driver.
	<p>When further tightening the belt, the rotation speed increases.</p>	<ul style="list-style-type: none"> • Check for excessive load. • Check the belt tension and the tension rate. • Recheck that the belt transmission capacity is appropriate for the load. • At a place with excessively high temperature, tighten the belt further.
<p>The bearings are excessively heated.</p> 	<p>Check for excessive tightening of the belt.</p>	<ul style="list-style-type: none"> • Check the tension mark or measure the tension by the tensiometer. If the tension is too high, loosen the belt. • If the belt is too wide for the load, narrow the belt width.
	<p>The belt tension is appropriate.</p>	<ul style="list-style-type: none"> • Select appropriate bearings according to the bearing allowable load and rotation speed. Check for shortage of the lubricating oil.
<p>Belt deflection</p> 	<p>The belt deflects to the pulley axis. (Snaking)</p>	<ul style="list-style-type: none"> • When slight snaking of the belt affects the function, check that the belt is not bent.
	<p>The belt deflects perpendicularly to the direction of the pulley axis. (Waving)</p>	<ul style="list-style-type: none"> • The vibration frequency of the machine resonates with that of the natural vibration frequency of the belt; change the belt tension.

For Safety Use of NittaBeltPoly

1. Function and Performance

DANGER

- Do not use NittaBeltPoly as hoisting or towing equipment.

WARNING

- Do not use NittaBeltPoly beyond the acceptable range specified in the Catalog.
- When fire and malfunction of the controlled equipment are expected due to static electricity generating in the belt transmission device, use an antistatic belt. Set a neutralization apparatus in the transmission device.
- Do not use NittaBeltPoly for conveying prepackaged food.

2. Storage and Shipping

WARNING

- NittaBeltPoly is combustible; do not store or use it near fire or a high-temperature heat source.
- When storing heavy belts, fix them by appropriate jigs or stoppers to prevent falling and rolling.

CAUTION

- When storing and shipping the belts, do not distort them excessively.
- Store the belts in a low-temperature place free from direct sunlight. The recommended storage temperature is - 10 to + 30 °C.

3. Attaching the Belt and Daily Use

DANGER

- Be sure to put a cover over the rotating part including the belt.
- Before maintenance and inspection, be sure to turn off the switch and check that the machine stops.

WARNING

- When cleaning the belt, do not use chemicals harmful to humans.

CAUTION

- After replacing the belt with a new one, perform a test operation to adjust tension, elongation rate and operation.
- Do not attach the belt forcibly; use a motor slide, a tension pulley or a special pulling device.
- When abnormal noise, snaking, deviation, skidding, etc. occur, stop the belt immediately for inspection.

4. Attachment, Endless Processing, etc.

WARNING

- When using solvents or adhesives, fully ventilate the workplace. Keep fire away from the workplace.

CAUTION

- Carry out the endless processing by using the materials, the methods and the procedures specified by Nitta.
- Handle solvents and adhesives as directed.

5. Handling Used Belts

CAUTION

- Do not burn used belts; harmful gasses may be produced.
- Lawfully dispose of the used belts as industrial waste.

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