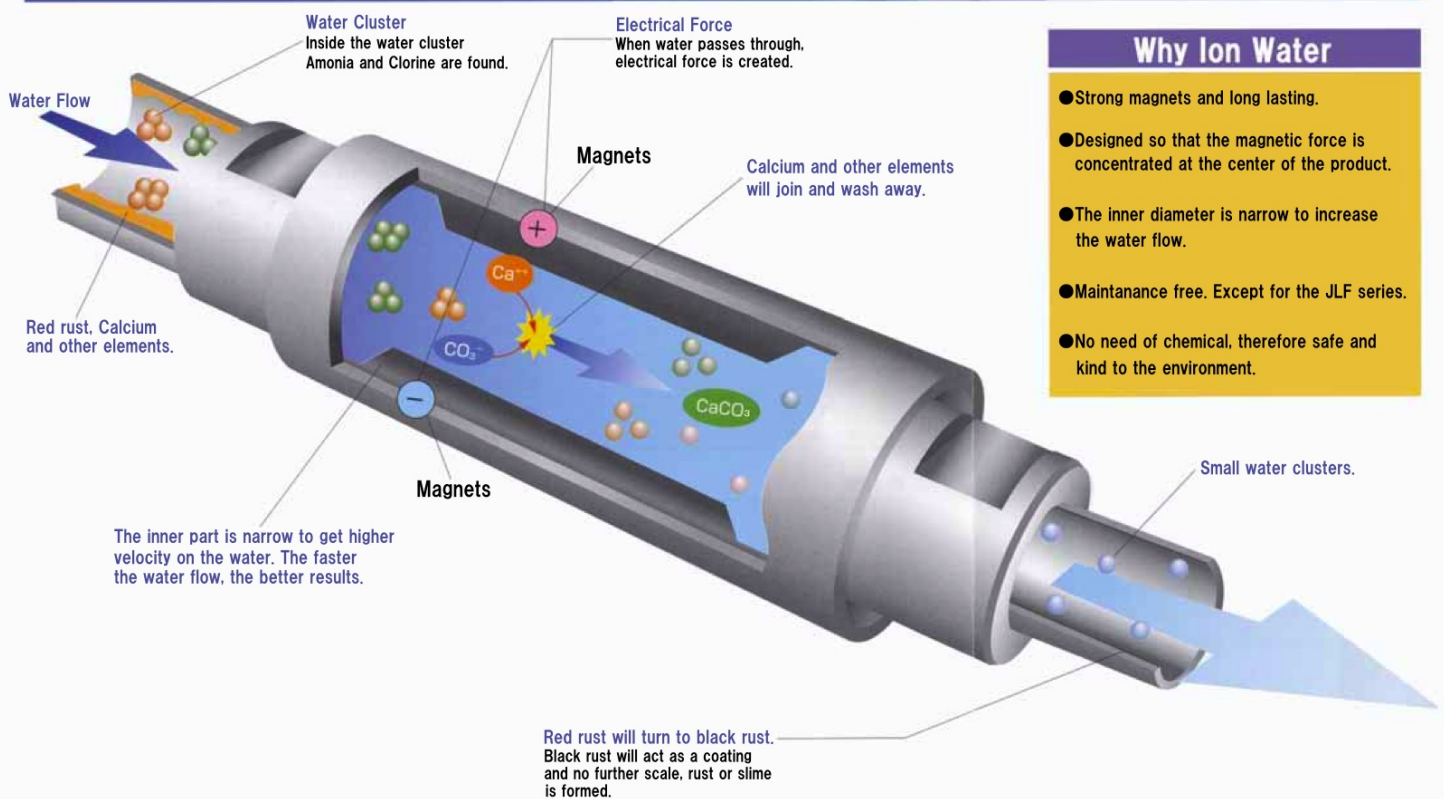


Ion Water's System and Function

Electrical force is created by the strong magnets, when the water passes through.
The water changes it's molecular formation, once passed through Ion Water.

$$F=q(V \times B)$$

F: Lorentz Force (Electrical Force)
q: Electrical Chage V: Velocity B: Gauss
Stronger the B (gauss) and faster V (speed of H₂O),
the higher performance.



Why Ion Water

- Strong magnets and long lasting.
- Designed so that the magnetic force is concentrated at the center of the product.
- The inner diameter is narrow to increase the water flow.
- Maintanance free. Except for the JLF series.
- No need of chemical, therefore safe and kind to the environment.

MOLD WATER (TE)

Apartments, Hotels, Restaurants, Other Establishments.

Here is a product that will relieve you from red rust and bacteria in the water that goes into your home . MOLD WATER is the answer for your problems.

Cooling Tower

It will prevent from deterioration and last longer the parts in it.
This means no molding and red rust

Bathroom

The bad smell will be reduced and molding will not occur which washing the bathroom will be easier and quicker.

Kitchen

It helps disinfect and the gease or oil can be washed easily.

Others

The water is better therefore in gardening the plants or trees will grow quicker and beautifully. In the laundry, the stains on the clothes will come off easily.

Main entrance

Main entrance of the water, will disinfect and because of this will prevent from contamating the people living in the building with unwanted bacteria.

Individual Rooms

Red rust will not be created therefore there will be no rust coming out of the water

Bathroom

Creates a difficult environment for the bacteria to survive like Legionella bacteria.

Boiler

It prevents scale formation, the temperature will be more stable and it will last longer the boiler.

Sewer

It is kind for our environment.

Sewer

Install like this



MOLD WATER



NIHON TECHNO Co.,LTD.

4-3-5 Kohan Okaya-city Nagano JAPAN

E-mail nihontcn@po4.lcv.ne.jp



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Samurai Screw Japan

Exclusive Distributor : GTY Co., Ltd.

Manufactured by : YAO SEIBYO Co., Ltd. /



Products Catalog



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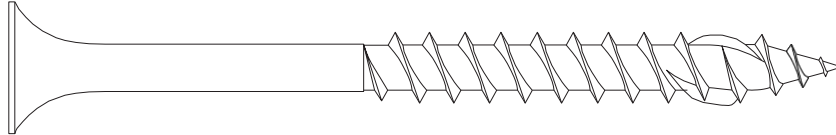
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TAPIX

The ultimate coarse thread that meets the demanding requirements on the field with reliability and proven performance.

No pre-drilling is required thanks to the special blade (wing), effectively reducing the occurrence of wood splitting.

※ Pre-drilling may be required for very hard wood, etc.



TAPIX
Ultimate[®]
Coarse Thread

Features

Less prone to common issues like breakage or head flying off seen in regular coarse threads, it is adaptable to both hard and soft materials.

The unique blade (wing) of our proprietary technology demonstrates its power, allowing the screw to enter the wood without the need for pre-drilling.

Powerfully expelling wood chips (cutting dust) reduces the load on the wood, minimizing the risk of wood splitting.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① St (SWCH18A)	Head Diameter	① St (SWCH18A)
		② Bugle		② Pan Head
		③ Electric Plating		③ Electric Plating
4.2 x 25	D = 8	1,000pc x 10 boxes	D = 7.5	1,000pc x 10 boxes
4.2 x 28	D = 8	1,000pc x 10 boxes		
4.2 x 32	D = 8	800pc x 10 boxes	D = 7.5	800pc x 10 boxes
4.2 x 41	D = 8	600pc x 10 boxes	D = 7.5	600pc x 10 boxes
4.2 x 45	D = 8		D = 7.5	500pc x 10 boxes
4.2 x 51	D = 8	500pc x 10 boxes	D = 7.5	500pc x 10 boxes
4.2 x 57	D = 8	300pc x 10 boxes		
4.2 x 65	D = 8	300pc x 10 boxes	D = 7.5	300pc x 10 boxes
4.5 x 75	D = 8	200pc x 10 boxes	D = 7.5	200pc x 10 boxes
4.8 x 90	D = 8.5	200pc x 10 boxes		
4.8 x 100	D = 8.5	200pc x 10 boxes		

Material compatibility

Materials in use Compatibility

Super Hard Wood ★★★

Hard Wood ★★★★★

Soft Wood ★★

ALC

Particle board - Plywood ★★★

Composite Wood ★★★★★

Gypsumboard

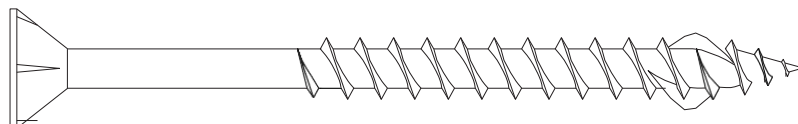
※Rated as the highest with a 5-star mark

TAPIX SLIM

A slender screw diameter for smooth insertion, ideal for door frames, window frames, and fixtures. No pre-drilling is required thanks to the special blade (wing), effectively reducing the occurrence of wood splitting.

※ Pre-drilling may be required for very hard wood, etc.

The stylish black color, with its sharp and sophisticated appearance, is also popular.



Features

Even with a small head and a slim neck, the deep cross slot and stability contribute to improved workability.

Enters firmly with low torque, suitable for both hard and soft materials. The head's well-designed flex shape allows for better countersinking. Our proprietary technology's special blade (wing) demonstrates its power as the screw itself enters the wood, creating a hole without the need for pre-drilling.

TAPIX
Ultimate®
Coarse Thread

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① St (SWCH18A) ② Flexible ③ Electric Plating		① St (SWCH18A) ② Pod ③ RUSPERT	Size	Head Diameter	① SUS410 Stainless ② Flexible ③ Passivation treatment
		Large Box	Small Box				
3.3 x 16	D = 6	2,000pc x 6 boxes	400pc x 10 boxes		3.3 x 25	D = 6	330 pc x 10 boxes
3.3 x 20	D = 6	1,850pc x 6 boxes	380pc x 10 boxes		3.3 x 30	D = 6	300 pc x 10 boxes
3.3 x 25	D = 6	1,700pc x 6 boxes	370pc x 10 boxes	370pc x 10 boxes	3.3 x 35	D = 6	260 pc x 10 boxes
3.3 x 32	D = 6	1,550pc x 6 boxes	350pc x 10 boxes	350pc x 10 boxes	3.3 x 40	D = 6	240 pc x 10 boxes
3.3 x 38	D = 6	1,400pc x 6 boxes	310pc x 10 boxes	310pc x 10 boxes	3.3 x 45	D = 6	200 pc x 10 boxes
3.3 x 45	D = 6	1,200pc x 6 boxes	270pc x 10 boxes	270pc x 10 boxes	3.3 x 50	D = 6	180 pc x 10 boxes
3.3 x 50	D = 6	950pc x 6 boxes	215pc x 10 boxes	215pc x 10 boxes	3.3 x 55	D = 7	130 pc x 10 boxes
3.8 x 57	D = 7	750pc x 6 boxes	180pc x 10 boxes		3.3 x 60	D = 7	120 pc x 10 boxes
3.8 x 65	D = 7	600pc x 6 boxes	135pc x 10 boxes	135pc x 10 boxes	3.3 x 65	D = 7	110 pc x 10 boxes
3.8 x 75	D = 7	500pc x 6 boxes	120 pc x 10 boxes	120pc x 10 boxes	3.3 x 75	D = 7	90 pc x 10 boxes
3.8 x 90	D = 7	250pc x 10 boxes	60pc x 10 boxes				

Material Comaptibility

Materials in use Compatibility

Super Hard Wood

Hard Wood ★★ ★

Soft Wood ★★ ★

ALC

Materials in use Compatibility

Particle board -Plywood ★★ ★★

Composite Wood ★★ ★★ ★

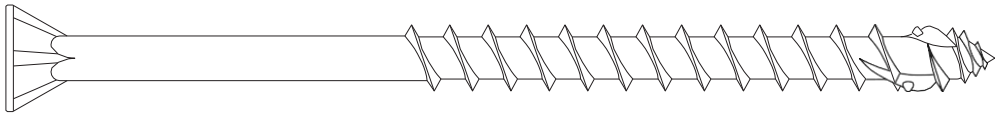
Gypsumboard

※Rated as the highest with a 5-star mark

雅 -MIYABI-

An evolved version of TAPIX developed as a "Wood Splitting Prevention Screw."
Improved performance in drilling force and expelling wood chips.

Reduces the load on wood and prevents wood splitting.



Features

Through clever design, the tip of the screw efficiently cuts through the wood fibers, eliminating concerns about wood splitting at a level surpassing the conventional TAPIX. The angle of the screw tip has been improved, significantly enhancing stability during driving. The special flexible head suppresses splinters, ensuring a clean finish.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① St (SWCH18A) ② Special Flexible ③ Electric Plating
3.8 x 25	D = 7.3	400pc x 10 boxes
3.8 x 30	D = 7.3	380pc x 10 boxes
3.8 x 35	D = 7.3	370pc x 10 boxes
3.8 x 40	D = 7.3	350pc x 10 boxes
3.8 x 45	D = 7.3	310pc x 10 boxes
3.8 x 50	D = 7.3	270pc x 10 boxes
4.2 x 65	D = 7.5	215pc x 10 boxes
4.2 x 75	D = 7.5	180pc x 10 boxes
4.5 x 90	D = 7.5	135pc x 10 boxes

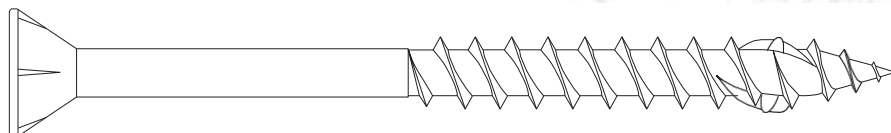
Material compatibility	
Materials in use	Compatibility
Super Hard Wood	★
Hard Wood	★★★
Soft Wood	★★★★
ALC	
Particle board -Plywood	★★★★
Composite Wood	★★★★★
Gypsumboard	★★

※Rated as the highest with a 5-star mark

TAPIX V for High Torque Tools

It demonstrates robustness to withstand high torque from impact drivers and is resistant to impacts.

Its durability allows for optimal performance of the tool, contributing to smooth operations and increased efficiency.



TAPIX
Ultimate[®]
Coarse Thread

Feature

With approximately 1.5 times the strength compared to regular coarse threads, it possesses greater resistance to breakage and head stripping, ensuring confident use with **high-torque power drivers (36/40V class)**. The unique special blade (wing) of TAPIX demonstrates its power. The screw itself creates a pilot hole while entering the wood, minimizing the occurrence of wood splitting. It is also suitable for both soft and hard woods.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① St (SWCH18A)
		② Special Flexible
		③ Electric Plating
4.3 x 32	D = 8	330pc x 10 boxes
4.3 x 38	D = 8	300pc x 10 boxes
4.3 x 41	D = 8	280pc x 10 boxes
4.3 x 51	D = 8	220pc x 10 boxes
4.6 x 57	D = 8.3	170pc x 10 boxes
4.6 x 65	D = 8.3	150pc x 10 boxes
4.6 x 75	D = 8.3	120pc x 10 boxes
5.5 x 90	D = 9.3	60pc x 10 boxes
5.5 x 100	D = 9.3	50pc x 10 boxes
5.5 x 120	D = 9.3	30pc x 10 boxes

Material compatibility

Materials in use Compatibility

Super Hard Wood ★★★★★

Hard Wood ★★★★★★

Soft Wood ★★

ALC

Particle board -Plywood ★★★★★

Composite Wood ★★★★★★

Gypsumboard

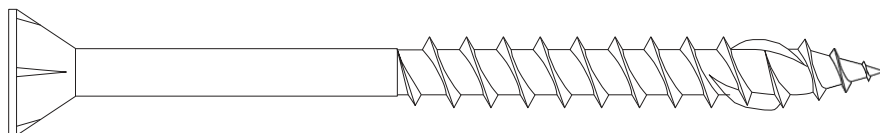
※Rated as the highest with a 5-star mark

EX TAP

Enhanced rust resistance and robust against corrosion,
TAPIX for exteriors.

With the effectiveness of the special blade, there is no
need for a pilot hole, minimizing the occurrence of wood
splitting.

*In some cases, such as extremely
hard wood, a pilot hole may be
required.



TAPIX
Ultimate[®]
Coarse Thread

Features

Adopting a highly corrosion-resistant and anti-corrosive Stainless Coating surface treatment.

Fully equipped with the performance as an outdoor construction screw, it is suitable for wood exterior construction
such as balcony, gardening, bench, wood deck installation, etc.

It is also suitable for interior wood construction in wet areas such as kitchens and bathrooms.

With minimal breakage and head-stripping, it is robust, making it safe for use with high-torque power drivers.

We offer three types of **bit slots: Phillips, square and Star**. TAPIX unique special blade (wing) demonstrates its
power, smoothly penetrating through hard and soft woods while minimizing the occurrence of wood splitting.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① St (SWCH18 ¹)
		② Flat Flexible
		③ Yao Coat
4.2 x 45	D = 8	270pc x 10 boxes
4.2 x 51	D = 8	240pc x 10 boxes
4.5 x 65	D = 8.3	160pc x 10 boxes
4.5 x 75	D = 8.3	140pc x 10 boxes
5.2 x 95	D = 9.5	60pc x 10 boxes
5.2 x 125	D = 9.5	35pc x 10 boxes

Material compatibility

Materials in use	Compatibility
Super Hard Wood	★★★★
Hard Wood	★★★★★
Soft Wood	★★
ALC	
Particle board -Plywood	★★★★
Composite Wood	★★★★
Gypsumboard	

※Rated as the highest with a 5-star mark



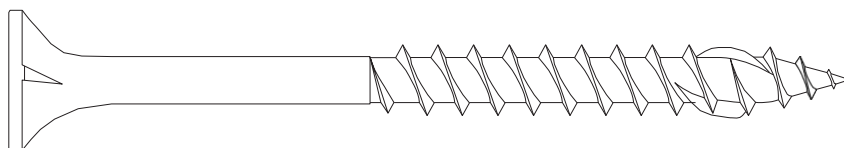
SUS J-1 TAPIX

Utilizing SUS305J1 stainless steel.

Ideal for environments where rust prevention is essential, boasting the TAPIX series' strongest rust resistance.

With the effectiveness of the special blade (wing), there is no need for a pilot hole, minimizing the occurrence of wood splitting.

*In some cases, such as extremely hard wood, a pilot hole may be required.



TAPIX
Ultimate[®]
Coarse Thread

Features

Resistant to rust even in challenging conditions such as places heavily impacted by wind and rain, areas near water, coastal sites, and maritime environments. Additionally, it contributes to maintaining the aesthetic appeal of buildings as it is less prone to rust stains.

TAPIX's unique special blade (wing) demonstrates its power, smoothly penetrating through hard and soft woods while minimizing the occurrence of wood splitting.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① SUS(SUS305J1) ② Bugle Flexible ③ Passivation Treatment
4.2 x 32	D=8	400 pc x 5 boxes
4.2 x 38	D=8	340 pc x 5 boxes
4.2 x 41	D=8	300 pc x 5 boxes
4.2 x 45	D=8	280 pc x 5 boxes
4.2 x 51	D=8	230 pc x 5 boxes
4.5 x 57	D=8	180 pc x 5 boxes
4.5 x 65	D=8	150 pc x 5 boxes
4.5 x 75	D=8	120pc x 5 boxes
5.2 x 90	D = 9	80pc x 5 boxes
5.2 x 120	D = 9	50pc x 5 boxes

Material compatibility

Materials in use Compatibility

Super Hard Wood ★

Hard Wood ★★★

Soft Wood ★

ALC

Particle board -Plywood ★★★

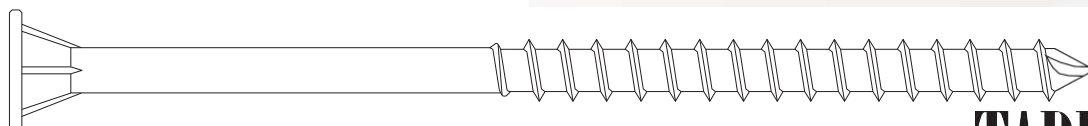
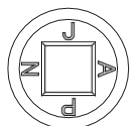
Composite Wood ★★★

Gypsumboard

※Rated as the highest with a 5-star mark

305J1Deck Screws

Utilizing SUS305J1 stainless steel for excellent rust resistance and corrosion resistance. Equipped with TAPIX's special blade, it accommodates high-density hard deck materials. High safety makes it ideal for public facilities in education and welfare.



TAPIX
Ultimate®
Coarse Thread

Features

Powerfully drills into hard wood deck materials (pre-drilling is required for extremely hard materials), with minimal risks of thread breakage, head-stripping, and bit slot damage. It possesses high robustness and durability. Additionally, it allows for repeated driving and removal.

Resistant to rust and capable of withstanding chemical erosion from wood preservatives, it is well-suited for construction. The screw head is countersunk, and the square hole is positioned 1 stage lower, reducing the risk of injury in case of burrs during installation. Therefore, it is ideal for construction in public facilities such as schools, kindergartens, nurseries, and welfare-related projects. Available in two colors: Pasiphae and Bronze.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① SUS(SUS305J1) ② Bugle Flexible ③ Passivation Treatment
5.0 x 40	D=9	200 pc x 5 boxes
5.0 x 52	D=9	160 pc x 5 boxes
5.0 x 65	D=9	130 pc x 5 boxes
5.0 x 75	D=9	100 pc x 5 boxes
5.0 x 90	D=9	75 pc x 5 boxes

Material compatibility

Materials in use Compatibility

Super Hard Wood ★★★

Hard Wood ★★★★★

Soft Wood ★★★★★

ALC

Particle board -Plywood ★★

Composite Wood ★★★

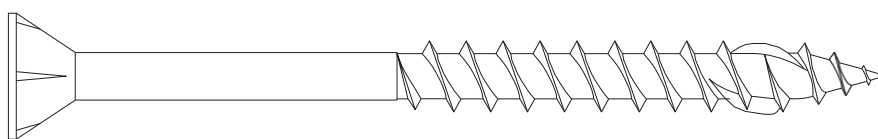
Gypsumboard

※Rated as the highest with a 5-star mark

Interior TAPIX

A convenient flush screw suitable for interior applications using hard materials. With the effectiveness of the special blade (wing), there is no need for a pilot hole, minimizing the occurrence of wood splitting.

* In some cases, such as extremely hard wood, a pilot hole may be required.



Feature

Due to its unique flexible shape, it provides a clean finish unlike regular flush screws. Additionally, the sharp tip of the screw allows for effortless driving, making the task progress smoothly with low torque.

The proprietary technology of the special blade (wing) demonstrates its power as the screw itself creates a pilot hole while entering the wood. Powerful expulsion of wood chips (cutting powder) reduces the load on the wood, minimizing the risk of wood splitting.

TAPIX
Ultimate[®]
Coarse Thread

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① St (SWCH18A) ② Special Flexible ③ Electric Plating
3.8 x 45	D=8	1,200 pc x 6 boxes
3.8 x 50	D=8	1,000 pc x 6 boxes
4.2 x 65	D=8	700 pc x 6 boxes
4.2 x 75	D=8	600 pc x 6 boxes
4.5 x 90	D=8	400 pc x 6 boxes
4.8 x 120	D=9	180 pc x 6 boxes

Material compatibility

Materials in use Compatibility

Super Hard Wood ★★

Hard Wood ★★★★★

Soft Wood ★★★

ALC

Particle board -Plywood ★★★

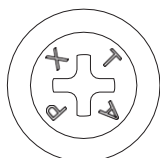
Composite Wood ★★★

Gypsumboard

※Rated as the highest with a 5-star mark

305J1 Stainless Steel Tile Screws

Utilizing SUS305J1 stainless steel, these screws are ideal for tiles, offering excellent rust resistance and equipped with TAPIX's special blade. Three color variations are available, making it easy to match with the tones of construction materials.



Feature

Thanks to the unique rust resistance of SUS305J1 stainless steel, even in harsh environments exposed to rain and direct sunlight, these screws firmly fasten tiles and construction materials over an extended period. TAPIX's special blade (wing) demonstrates its power, efficiently eliminating the need for the screw to drill a pilot hole on its own while simultaneously minimizing the occurrence of wood splitting.

TAPIX
Ultimate[®]
Coarse Thread

Available in three colors: Passivation Silver, Passivation Bronze, and Passivation Black, making it easy to match with the tones of construction materials. External dimensions are 10mm, thickness is 2.5mm, and options with EPDM gaskets are also available (confirmation of lead time required).

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① SUS(SUS305J1) ② Flat Washer ③ Passivation Treatment
4.0 x 50	D=10	200 pc x 10 boxes
4.0 x 55	D=10	200 pc x 10 boxes
4.0 x 65	D=10	100 pc x 10 boxes
4.0 x 75	D=10	100 pc x 10 boxes
4.0 x 90	D=10	100 pc x 10 boxes
4.0 x 100	D=10	100 pc x 10 boxes
4.0 x 115	D=10	100 pc x 10 boxes
4.0 x 135	D=10	100pc plastic bag
4.0 x 150	D=10	100pc plastic bag

Material compatibility

Materials in use Compatibility

Super Hard Wood ★★★★★

Hard Wood ★★★★★

Soft Wood ★★★

ALC

Particle board -Plywood ★★★★★

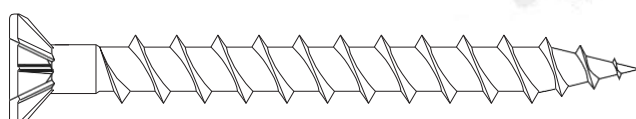
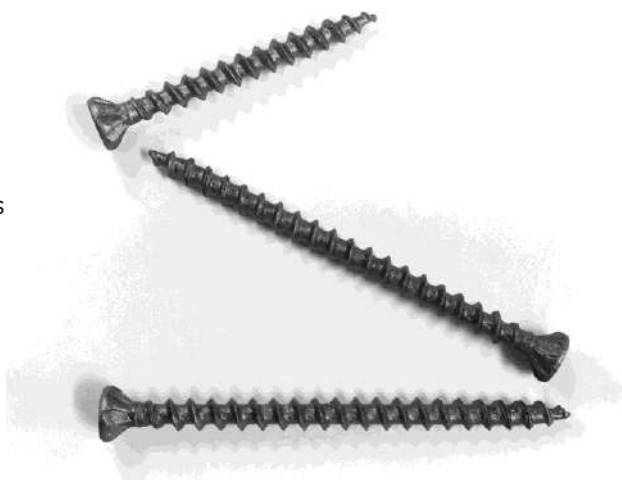
Composite Wood ★★★★★

Gypsumboard

※Rated as the highest with a 5-star mark

ALCoK for ALC Board

ALCoK ensures a secure connection between ALC (Autoclaved Lightweight Concrete) and wood, providing tremendous holding power. Simply tightening it suppresses the generation of gaps firmly, eliminating the need for preliminary fixing or pre-drilling.



Feature

Compared to conventional products, ALCoK achieves tremendous holding power (based on our company's comparison) and prevents the formation of gaps between ALC and wood. Additionally, it can be screwed in with a commercially available screwdriver (with less damage to ALC compared to hammering methods), eliminating the need for preliminary fixing or pre-drilling.

It demonstrates its effectiveness in laminating plywood and veneer, providing strong clamping force with its large head. Adopting special steel with overall hardening, it ensures strength for repeated use. Furthermore, its unique stainless coating treatment enhances its rust resistance.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① SUS(SUS305J1) ② Flat Washer ③ Passivation Treatment
5.3 x 38	D=8.5	200 pc x 10 boxes
5.3 x 50	D=8.5	180 pc x 10 boxes
5.3 x 60	D=8.5	160 pc x 10 boxes
5.3 x 75	D=8.5	130 pc x 10 boxes
5.3 x 90	D=8.5	100 pc x 10 boxes

Material compatibility

Materials in use Compatibility

Super Hard Wood

Hard Wood

Soft Wood ★★★★★

ALC ★★★★★

Particle board -Plywood ★★★

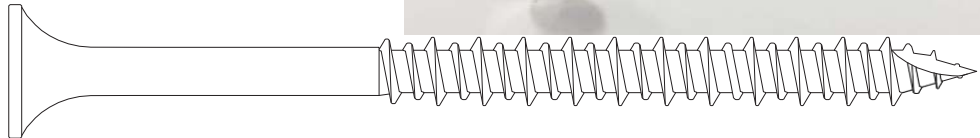
Composite Wood ★★★

Gypsumboard

※Rated as the highest with a 5-star mark

Long Press Screw – NAGESHI- <長押>

With its advanced cutting edge and low thread pitch, it boasts exceptional stability at the start of driving. It offers a wide range of applications in woodworking and provides versatile usability for multipurpose tasks.



Feature

Regardless of the hardness or softness of the wood, it firmly secures with the effectiveness of the cutting-edge tip.

With excellent holding power, it is a multitasking player that can meet various needs in woodworking, not only indoors but also in different woodworking scenarios.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① St (SWCH18A) ② Bugle ③ Electric Plating
3.8 x 25	D=8	2,000 pc x 6 boxes
3.8 x 32	D=8	1,800 pc x 6 boxes
3.8 x 38	D=8	1,500 pc x 6 boxes
3.8 x 42	D=8	1,300 pc x 6 boxes
3.8 x 45	D=8	1,200 pc x 6 boxes
3.8 x 50	D=8	1,000 pc x 6 boxes
3.8 x 65	D=8	700 pc x 6 boxes
3.8 x 75	D=8	600 pc x 6 boxes
3.8 x 90	D=8	350 pc x 6 boxes
3.8 x 105	D=8	210 pc x 6 boxes
3.8 x 120	D=8	180 pc x 6 boxes

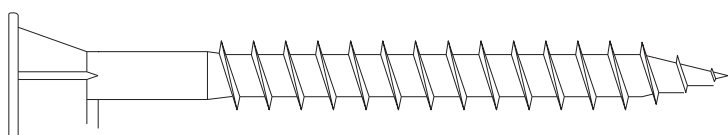
Material compatibility

Materials in use	Compatibility
Super Hard Wood	★
Hard Wood	★★★★
Soft Wood	★★★★★
ALC	
Particle board -Plywood	★★★★
Composite Wood	★★★★
Gypsumboard	

※Rated as the highest with a 5-star mark

Screws for Concrete Formwork Panel

It demonstrates high-level rust resistance with its green chromate surface treatment. The special flex design ensures good sinking and minimizes occurrences of sinking, floating, or waviness.



Features

The adoption of green chromate surface treatment makes it resistant to deterioration even when used with conpane material treated with wood preservatives or chemicals, reducing the likelihood of rust formation. The special flex head shape results in minimal finishing fuzz, making it less prone to floating or waviness and providing benefits such as increased withdrawal strength.

The well-received pearled head ensures easy putty application (see right photo). Troubles such as head floating or breaking are less likely to occur even when the substrate hardness is not consistently uniform.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① St (SWCH18A) ② Special Flexible ③ Electric Plating
3.8 x 25	D=7	900 pc x 10 boxes
3.8 x 30	D=7	800 pc x 10 boxes
3.8 x 35	D=7	700 pc x 10 boxes
3.8 x 40	D=7	600 pc x 10 boxes
3.8 x 50	D=7	500 pc x 10 boxes

Material compatibility

Materials in use Compatibility

Super Hard Wood

Hard Wood ★★

Soft Wood ★★★★★

ALC

Particle board -Plywood ★★★★★

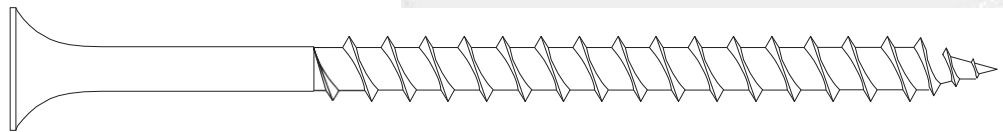
Composite Wood ★★★★★

Gypsumboard

※Rated as the highest with a 5-star mark

Coarse Thread Bugle

High quality and ease of use unique to domestically produced products. Exhibits holding power that surpasses nails by a significant margin (approximately 5 times). Trumpet-shaped design pulls the opposing material closer, preventing head floating, board floating, and floor warping.



Feature

Due to the deeper cross-hole compared to standard products, it provides better stability during driving, significantly improving workability. With a higher and wider pitch on the thread, it exhibits approximately 5 times the holding power of regular nails. The sharp tip easily penetrates wood, and the bugle-shaped head design effectively pulls the opposing material, reducing the occurrence of gaps.

Additionally, it prevents head floating, board floating, and floor warping.

We have an on-site head painting facility, allowing for quick coloring (special colors may require consultation) with short lead times.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① St (SWCH18A) ② Bugle ③ Electric Plating	① 401Stainless ② Bugle ③ Passivation Treatment
3.8 x 25	D=8	1,000 pc x 10 boxes	1,000 pc x 10 boxes
3.8 x 28	D=8	1,000 pc x 10 boxes	1,000 pc x 10 boxes
3.8 x 32	D=8	1,000 pc x 10 boxes	1,000 pc x 10 boxes
3.8 x 38	D=8	700 pc x 10 boxes	700 pc x 10 boxes
3.8 x 41	D=8	500 pc x 10 boxes	500 pc x 10 boxes
3.8 x 45	D=8	500 pc x 10 boxes	500 pc x 10 boxes
3.8 x 51	D=8	500 pc x 10 boxes	500 pc x 10 boxes
3.8 x 57	D=8	400 pc x 10 boxes	400 pc x 10 boxes
4.2 x 65	D=8	300 pc x 10 boxes	300 pc x 10 boxes
4.5 x 75	D=8	200 pc x 10 boxes	200 pc x 10 boxes
5.0 x 90	D=8.5	200 pc x 10 boxes	200 pc x 10 boxes
5.0 x 100	D=8.5	150 pc x 10 boxes	150 pc x 10 boxes
5.0 x 120	D=8.5	120 pc x 10 boxes	
5.2 x 120	D=9		120pc x 10 boxes
5.2 x 150	D=9		100 pc plastic bag
3.8 x 38 (half screw)	D=8	700 pc x 10 boxes	
3.8 x 41 (half screw)	D=8	500 pc x 10 boxes	
3.8 x 45 (half screw)	D=8	500 pc x 10 boxes	
3.8 x 51 (half screw)	D=8	500 pc x 10 boxes	
3.8 x 57 (half screw)	D=8	400 pc x 10 boxes	

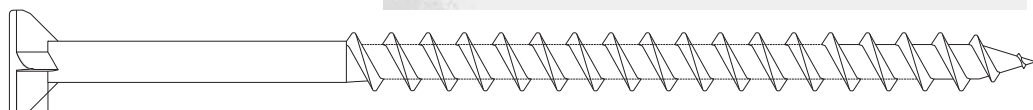
Material compatibility

Materials in use	Compatibility
Super Hard Wood	★
Hard Wood	★★
Soft Wood	★★★★
ALC	★
Particle board -Plywood	★★
Composite Wood	★★
Gypsumboard	★★★

※Rated as the highest with a 5-star mark

Coarse Thread Flexible

High quality and user-friendliness unique to domestically produced products. Exhibits holding power that surpasses nails by a significant margin (approximately 5 times). The flexi-shaped design allows the head to sink into the material, preventing head floating, board floating, and floor warping.



Feature

The deeper cross-hole compared to conventional products enhances stability during driving, significantly improving workability.

With a higher and wider pitch on the thread, it exhibits approximately 5 times the holding power of regular nails.

The sharp tip easily penetrates wood, and the flexi-shaped head sinks into the material, preventing head floating, board floating, and floor warping. We have an on-site head painting facility, allowing for quick coloring (special colors may require consultation) with short lead times.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① St (SWCH18A) ② Flexible ③ Electric Plating	① 401Stainless ② Flexible ③ Passivation Treatment
3.8 x 25	D=7	1,000 pc x 10 boxes	1,000 pc x 10 boxes
3.8 x 28	D=7	1,000 pc x 10 boxes	1,000 pc x 10 boxes
3.8 x 32	D=7	1,000 pc x 10 boxes	1,000 pc x 10 boxes
3.8 x 38	D=7	700 pc x 10 boxes	700 pc x 10 boxes
3.8 x 41	D=7	500 pc x 10 boxes	500 pc x 10 boxes
3.8 x 45	D=7	500 pc x 10 boxes	500 pc x 10 boxes
3.8 x 51	D=7	500 pc x 10 boxes	500 pc x 10 boxes
3.8 x 57	D=7	400 pc x 10 boxes	400 pc x 10 boxes
4.2 x 65	D=7.5	300 pc x 10 boxes	300 pc x 10 boxes
4.5 x 75	D=7.5	200 pc x 10 boxes	200 pc x 10 boxes
5.0 x 90	D=7.5	200 pc x 10 boxes	200 pc x 10 boxes
5.0 x 120	D=7.5		120 pc x 10 boxes
4.2 x 38 (half screw)	D=7	700 pc x 10 boxes	

Material compatibility

Materials in use Compatibility

Super Hard Wood ★

Hard Wood ★★

Soft Wood ★★★

ALC ★

Particle board -Plywood ★★★★★

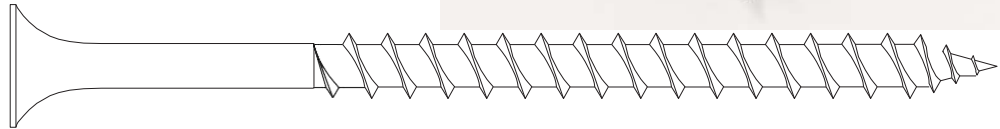
Composite Wood ★★★★★

Gypsumboard ★

※Rated as the highest with a 5-star mark

Colored Coarse Thread

Exhibits holding power that surpasses nails by a significant margin (approximately 5 times). The trumpet-shaped design pulls the opposing material closer, preventing head floating, board floating, and floor warping. Ideal for interior construction in residential projects as it is easy to match the color tone to building materials.



Futures

Available in five colors: Bronze, Gold, Green, Black, and White. Ideal for interior installation in residential projects as the colors are easily matched to building materials. Additionally, the rust-resistant treatment enhances its anti-corrosion capabilities.

With a high thread and wide pitch, it exhibits holding power approximately 5 times that of regular nails. The sharp tip easily penetrates wood, and the trumpet-shaped head effectively pulls the opposing material, reducing the occurrence of gaps. It also prevents head floating, board floating, and floor warping.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① St (SWCH18A) ② Bugle ③ Ruspert
3.8 x 25	D=8	1,000 pc x 10 boxes
3.8 x 32	D=8	1,000 pc x 10 boxes
3.8 x 38	D=8	700 pc x 10 boxes
3.8 x 41	D=8	500 pc x 10 boxes
3.8 x 51	D=8	500 pc x 10 boxes
3.8 x 57	D=8	400 pc x 10 boxes
4.2 x 65	D=8	300 pc x 10 boxes
4.5 x 75	D=8	200 pc x 10 boxes

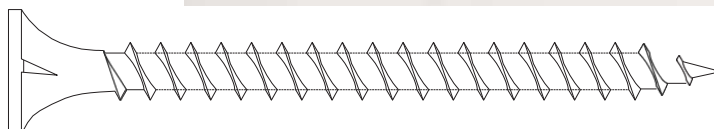
Material compatibility	
Materials in use	Compatibility
Super Hard Wood	★
Hard Wood	★★
Soft Wood	★★★
ALC	★★★
Particle board -Plywood	★★
Composite Wood	★★
Gypsumboard	

※Rated as the highest with a 5-star mark

Slim Coarse Thread

High quality and user-friendliness unique to Japanese products. Suppresses wood splitting, wood floating, and spinning freely. Strongly tightens wood to wood, minimizing gaps.

A unique slim screw with a rare trumpet-flex design.



Futures

Reliable and Trusted Japanese Quality. Addresses the three major issues of wood splitting, wood floating, and spinning freely. With a deeper cross-hole compared to imported products, it provides better stability during driving, significantly improving workability. The <pulling effect> strongly tightens wood to wood, preventing gaps in the joined parts. Additionally, the special trumpet-flex design comes into play, ensuring a flat and beautiful finish.

①Material ② Head Shapes ③Surface Treatment

Size	Head Diameter	① St (SWCH18A)
		② Bugle Flexible
		③ Electric Plating
3.3 x 30	D=7	850 pc x 10 boxes
3.3 x 35	D=7	800 pc x 10 boxes
3.3 x 40	D=7	700 pc x 10 boxes
3.3 x 45	D=7	650 pc x 10 boxes
3.3 x 50	D=7	600 pc x 10 boxes
3.3 x 55	D=7	500 pc x 10 boxes
3.8 x 60	D=8	400 pc x 10 boxes
3.8 x 65	D=8	350 pc x 10 boxes
3.8 x 75	D=8	200 pc x 10 boxes
3.8 x 90	D=8	150 pc x 10 boxes

Material compatibility

Materials in use Compatibility

Super Hard Wood

Hard Wood ★★

Soft Wood ★★★★★

ALC

Particle board -Plywood ★★★★★

Composite Wood ★★★

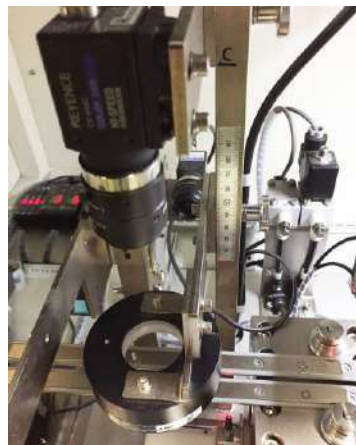
Gypsumboard

※Rated as the highest with a 5-star mark



The screws provided by GTY are based on the extensive technical expertise and experience of the manufacturing company, Yao Seibiyo Co., Ltd., accumulated over many years. With a foundation of traditional and trusted high-quality production capabilities, we excel in providing OEM solutions beyond catalog models.

For inquiries regarding size, shape, material, processing, surface treatment, color, and more, please feel free to contact us.



The manufacturing company, Yao Seiby Co., Ltd., introduced the automatic sorting machine VS-Liner100 (manufactured by Ooshima Equipment Co., Ltd.) in June 2019, aiming to automate and enhance the quality of the inspection and shipping processes. This automation has significantly reduced the occurrence of foreign objects and product mix-ups.

Light control film (Nanotec Film)



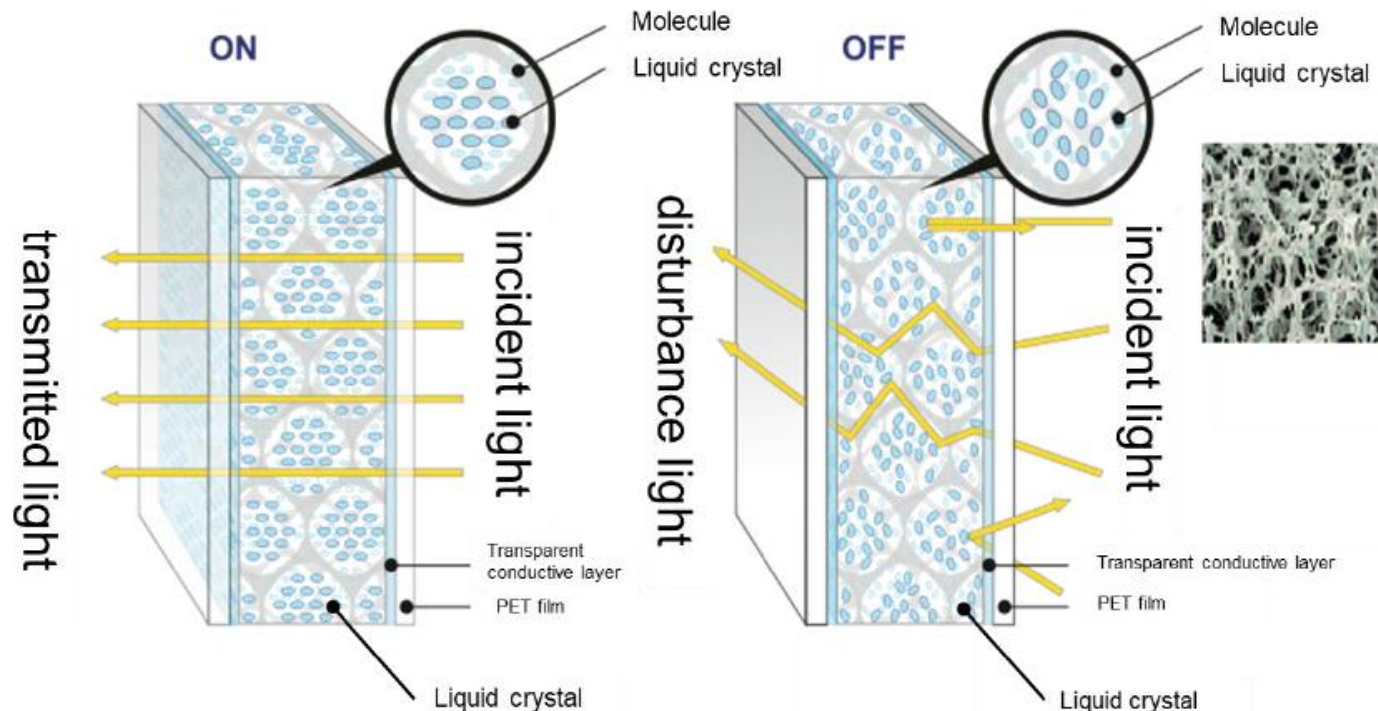
Takachiho America, Inc.



高千穂交易株式会社
TAKACHIHO KOHEKI CO.,LTD.

PNLC technology

PNLCs are film sheets which can switch opaque to transparent by electricity. Since it's a film, the versatility, applicability and convenience is very high. The usage is very broad from vehicles, business scenes, entertainment, house holds etc.

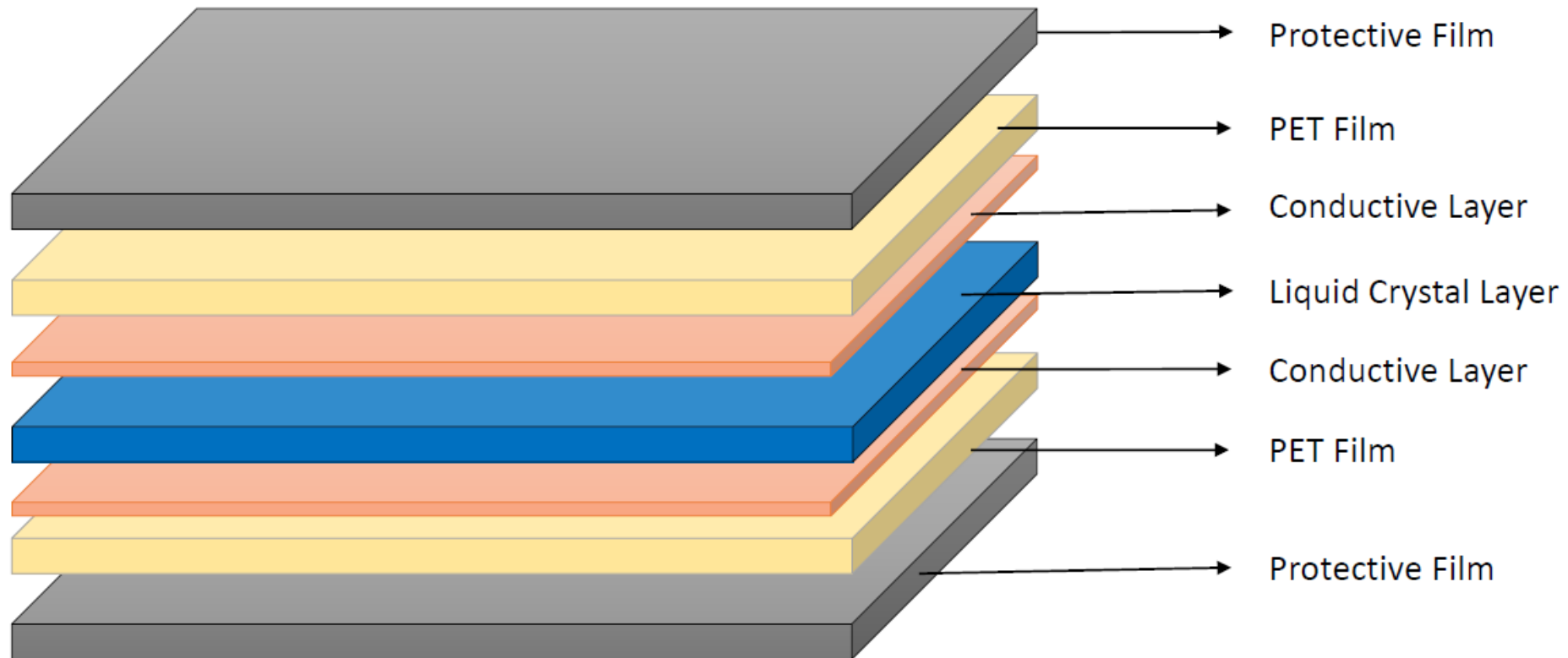


Normally the liquid crystals are facing randomly which scatters the light.

When AC voltage is applied, the liquid crystals line up which enables to transmit the light and becomes transparent.

Film's basic structure

2 types of thickness: 120 μ m or 270 μ m
(Excluding the Protective Film for transport.)



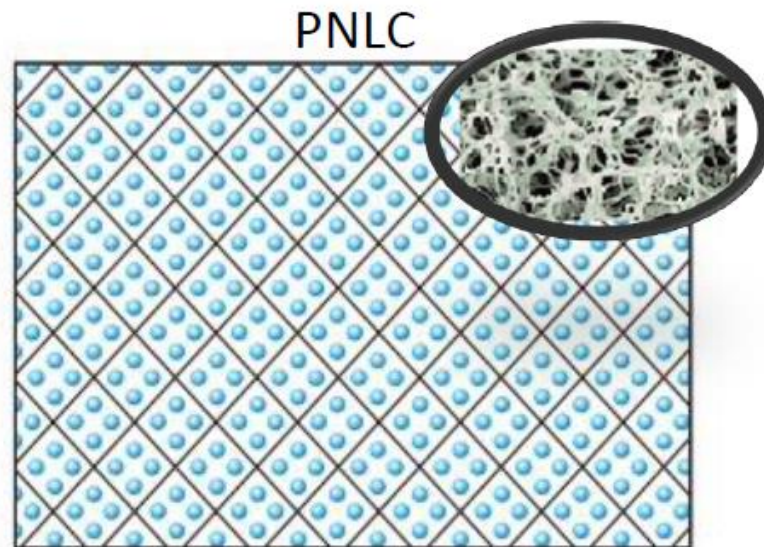
PNLC's network structure

Consistent quality, no matter the size

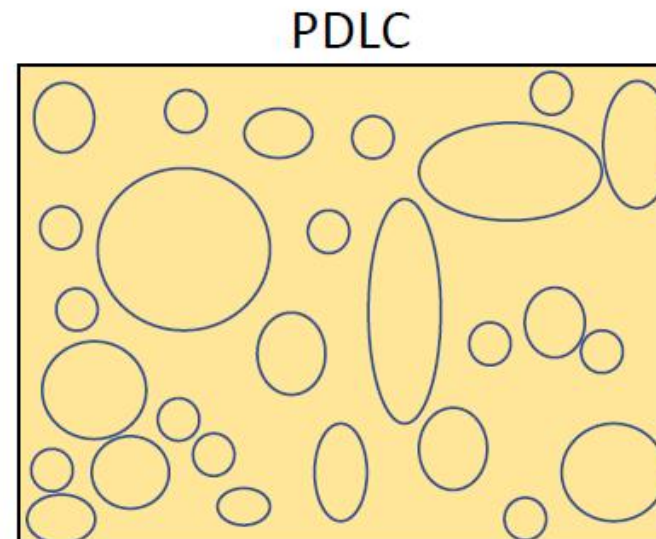
Compared to ordinary PDLC (Polymer Dispersed Liquid Crystal),

PNLC (Polymer Network Liquid Crystal)

offers consistent thickness and
optical characteristics wherever measured



Consistent quality



Can not be dispersed evenly

Reliability for Automotive

Automotive grade reliability

Compared to other PDLC (Polymer Dispersed Liquid Crystal),

Nanotec Film has high automotive grade reliability

Basic Reliability Test
(acceleration test) 3000h $\approx$ over 20y

Lower than 3% change after 3000h

Test subject: Type3-C

ON(100v)

60°C90%	HAZE	TT
0h	2.9	71.0
3000h	5.5	71.9
110°C	HAZE	TT
0h	2.9	71.0
3000h	4.0	72.0
UV (400nm Block)	HAZE	TT
0h	2.9	71.0
3000h	2.9	70.8

OFF

60°C90%	HAZE	TT
0h	99.0	46.2
3000h	99.0	47.5
110°C	HAZE	TT
0h	99.0	46.2
3000h	99.0	45.3
UV (400nm Block)	HAZE	TT
0h	99.0	46.1
3000h	99.0	42.0

Same test with competitor's film



Hazy



Destroyed

Every test results showed that it breaks the liquid crystal layer in less than 240h.
(which means it would break within a year)

Film's strong LC Layer

World's largest operating temperature range

For over 40 years, PDLC/PNLC's operating temperature
Has been around 0~55 °C (still is for most manufactures)

**We invented a strong LC layer
Which can operate within the temperature of**

-30°C~110°C



Colored PNLCs

Produce **various color films**

Developing own materials including dyes. By mixing the dye within the LC layer, it can have higher contrast than the colored PDLCs which use colored PET films.



Product's line

O.T.R. (Operating Temperature Range)
T.T. (Total Transmittance)

Our strength is to customize the films at your preference,
please be noted that our technology can exceed much more from lineup specification.



Type1, Type1-C
Fn: Standard
(120μm/270μm)

	OFF	ON
Haze	98%	4%
T.T.	74%	88%
Type1 O.T.R.	-10~70°C	
Type1-C O.T.R.	-20~110°C	



Type3-C
Fn: Thermal Barrier
(120μm)

	OFF	ON
Haze	99%	3%
T.T.	43%	73%
O.T.R.	-20~110°C	



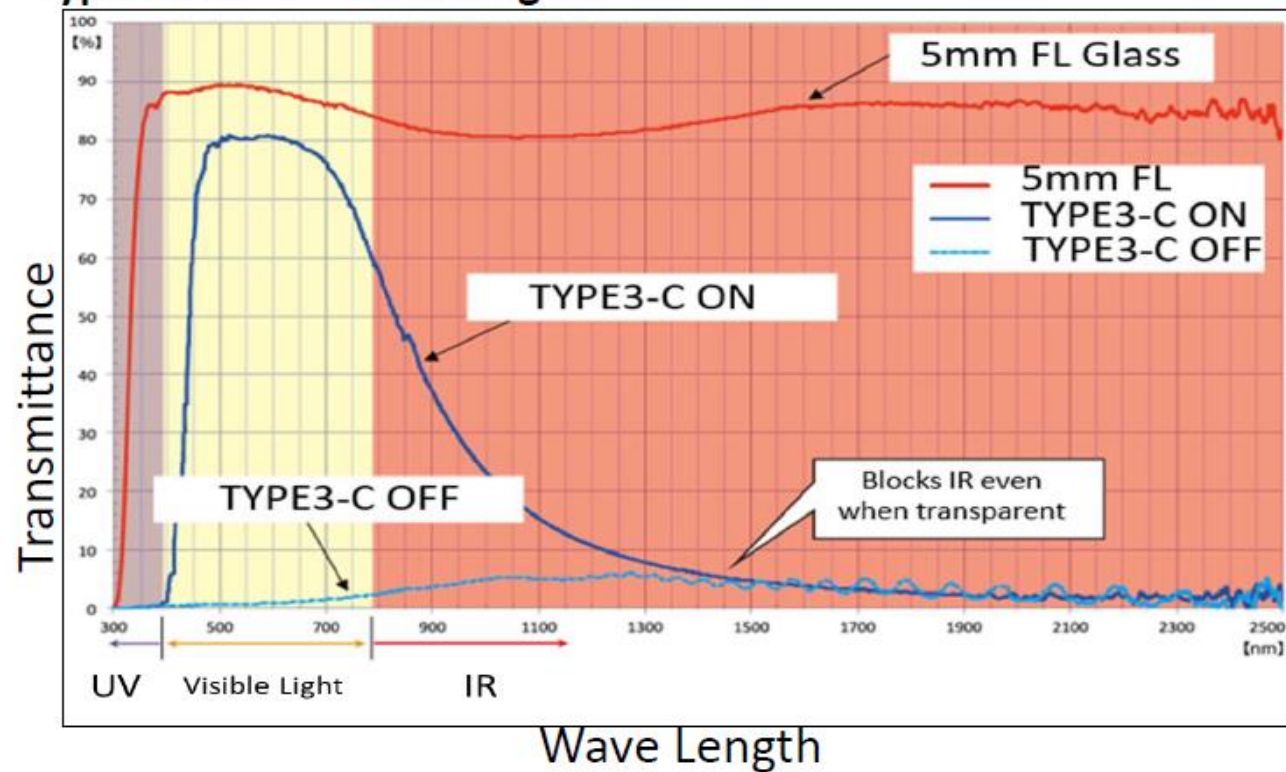
Type4
Fn: Reverse Mode
(270μm)

	OFF	ON
Haze	8%	94%
T.T.	87%	90%
O.T.R.	-10~65°C	

TYPE-3C Thermal Barrier

PNLC with IR block function.

Type3-C laminated with glass



	Experiment with Infrared Heater	Temp. (°C)	Difference
1	Ordinary Glass	50°C	
2	Glass + Type3-C	31°C	19°C

TYPE-4 Reversed mode

Opposite function than the normal PNLCs.

(OFF: Transparent, ON: Opaque)

Our film is the world's first invention of reverse mode PDLC/PNLCs in the world.
Our product is the only manufacturer/supplier for reverse mode.



What you can do with our films

Our film is applied into mainly 3 industries.
Building materials, Advertisement and Automotive.

You can project
images through laser
projectors.

Glass conference
room with
switchable shades.



TOYOTA Venza / Harrier's Star Gazing Roof



What we can do for you.

TK from JAPAN



- Formulation of LC layer



- Film Production in Rolls
- Aging Process



- Rough Cut
- Visual Inspection
- Cutting

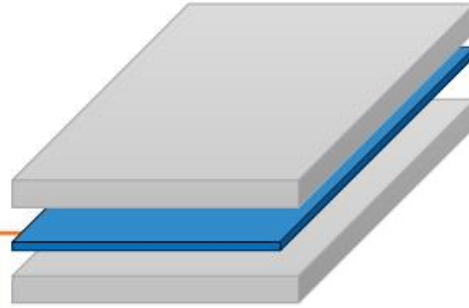


- FPC Assembly
- Full Inspection

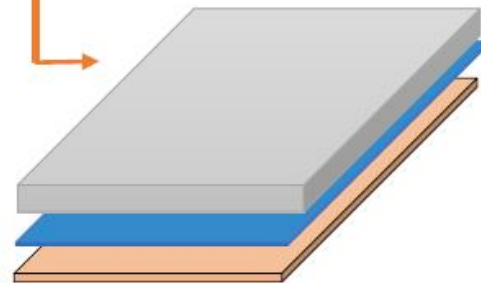
Shipping

3rd Party

Lamination



Pasting

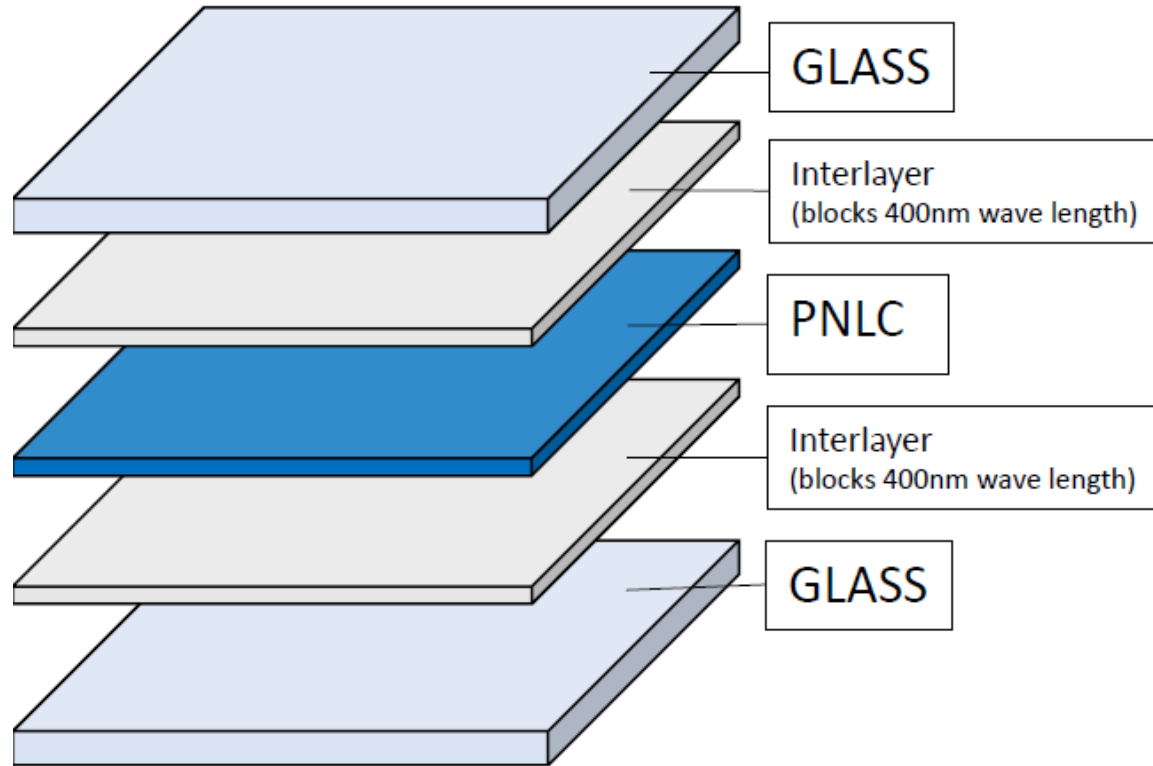


OEM

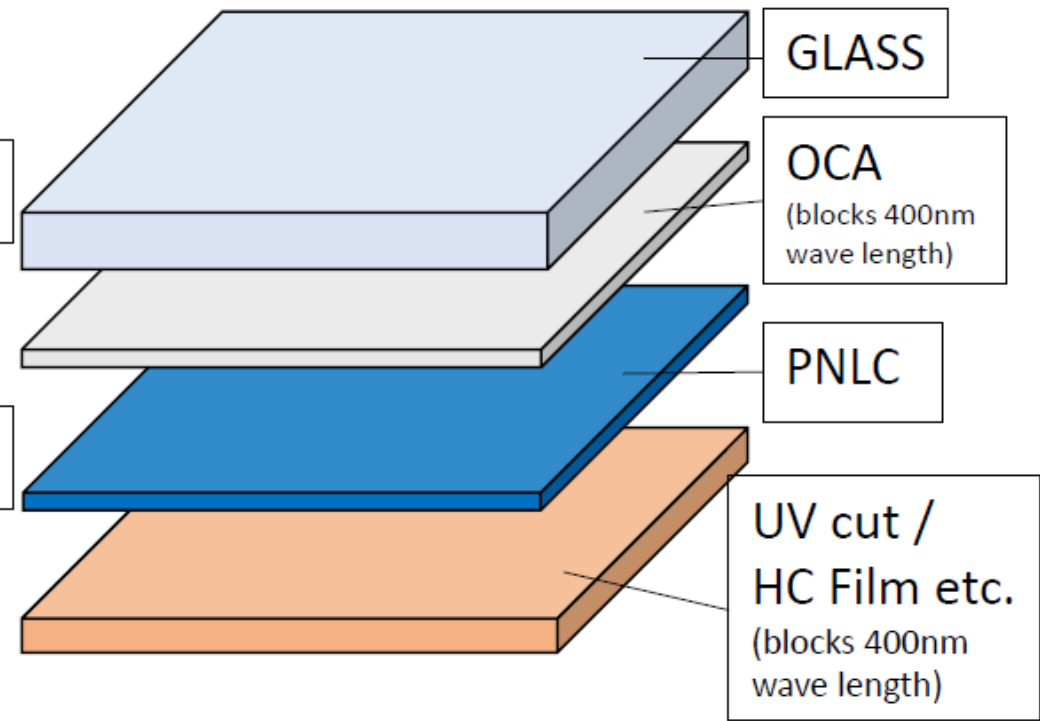


Application

Lamination



Pasting



TAKACHIHO KOHEKI CO.,LTD (JAPAN)

■ Profile (As of March 31, 2023)

- Established: March, 1952
- Capital : 1,209 millions of yen
- Accounts settlement : March 31
- Number of employees :
496 (Consolidated basis)
243 (Non-consolidated basis)
- Location:

**YOTSUYA TOWER 7F, 1-6-1 Yotsuya,
Shinjuku-ku, Tokyo JAPAN**

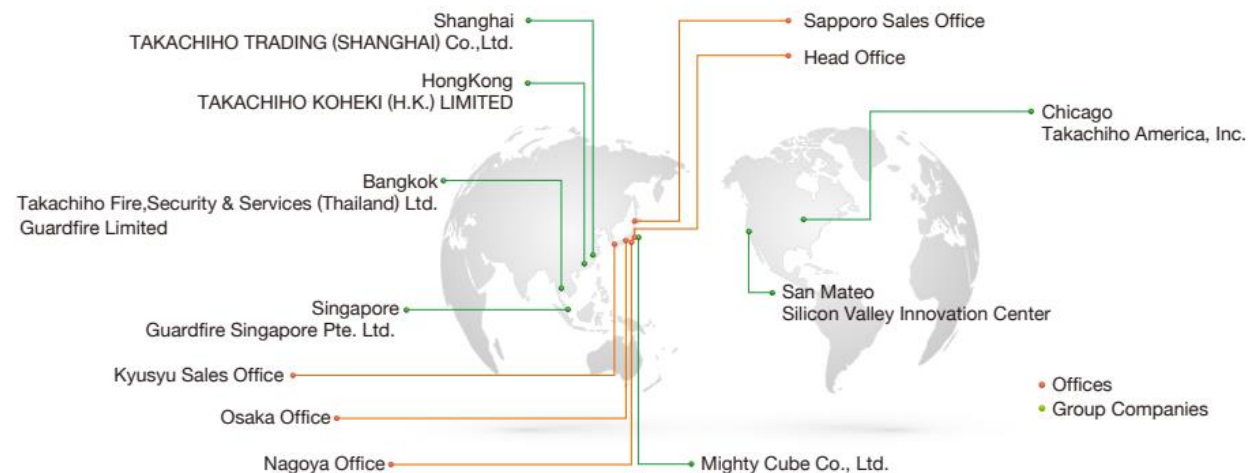
- Tokyo Stock Exchange Prime market

■ Main Business

Exports, imports, sales, installations and maintenance services including system designs and outsourcing services of system operations, in the fields of information network systems, security systems, mailing systems, fire protection systems, semiconductors and structural precision parts.

Global Network

A network of bases and consolidated companies that collaborate to create significant discoveries



TK Data Takachiho Koheki in Figures

● Percentage-of-Sales by Segments (Consolidated)

(Fiscal term ending in March 2022)



The five solutions that make up our business are categorized into two segments until fiscal year ended 2022 but starting from the fiscal year ending 2023, we will separate Cloud Service & Support from System Segment and operate in 3 segments: Cloud Service & Support, System Segment and Device Segment. Each solution has different products and customers, but they all share the same goal of constantly incorporating advanced technology and maintaining a high level of competitiveness. By complementing each other, the businesses work together to provide a stable management foundation and sustained growth.

● Service & Support

300 locations nationwide



365 days / 24-hour support

● Rate of Technical Employees Among All Employees

(As of April 1, 2022)

42.2%

The advanced technical capabilities of Takachiho Koheki, where around 40% of all employees are engineers, enable us to provide total solutions for all phases of consultation, customization of products, technical support, and after-sales follow-up services.

● Establishment (As of March 2022)

70 years

Our company was founded in 1952 and celebrated its 70th anniversary in March 2022. We will continue to contribute to the realization of a "safe, secure, and comfortable" society.

● Ratio of Ongoing Business with Customers

(Fiscal term ending in March 2022)

67.0%

This figure is the percentage of customers with whom we have done business four or more times in the past five years among our top 100 customers in terms of transaction value. About 70% of our customers trust and value us as a good partner. In addition, our major customers are leading domestic companies, government offices, and other blue-chip clients, forming a solid management foundation for our company.

● Capital adequacy ratio

(Fiscal term ending in March 2022)

72.9%

Thanks to our sound and stable management system, we have maintained a capital adequacy ratio of over 70% for 14 consecutive years. We will continue to conduct management in a way that earns the trust of our customers.