

Hydrophilic Sealing Material

Hydrotite

For Segment Lining Tunnel
For Repairing

(JAPAN QUALITY)

FEATURES

Hydrotite is well known as a superior water sealing material. Unlike conventional water sealing materials, Hydrotite has a unique double action system. First, the rubber elasticity forms a seal between the two surfaces. Second, unique to Hydrotite, the rubber absorbs water thus expanding within the joint gap, increasing sealing pressure water leakage is prevented as any joint opening due to external forces is automatically sealed by Hydrotite's water absorption.

Hydrotite products are world renowned for their long term stability and durability. Hydrotite seals can vary in their expandability depending on the required design and specific application.

Hydrotite continues to be used in a variety of applications from under water tunnels and water supply/drainage systems to civil engineering construction projects. Hydrotite prevents leakage problems before they occur.

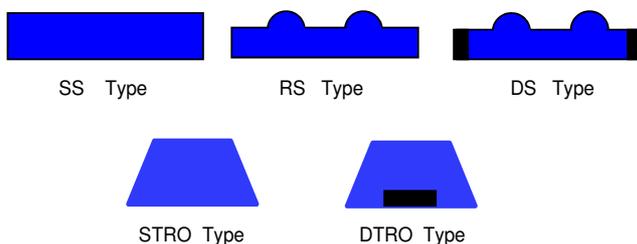


PRODUCTS

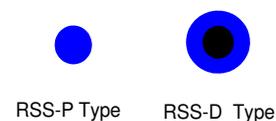
Hydrotite is suitable for a variety of applications. Hydrotite has an extensive product range applicable to many operating conditions and meeting a wide range of requirements.

TYPICAL PROFILES

Main usage: Segment Lining Tunnel



Main usage: Repairing Works
Existing Joints, etc.



<Super-Low Expansion Type>

■ MAIN USAGE

•Segment Lining Tunnel

Note: These items should not be used for site formed construction joints like Hydrotite CJ.



■ MAIN ITEMS

	SHAPE	CODE	SIZE (mm)	PACKING
Composite Structure		DTRO-0415-10	H4×(w1)10×W15	20M/R×5Reels/Carton
		DTRO-0515-10	H5×(w1)10×W15	
Single Structure		STRO-03515-10	H3.5×(w1)10×W15	20M/R×5Reels/Carton
		STRO-0415-10	H4×(w1)10×W15	

Hydrophilic Rubber Non-Hydrophilic Rubber

Note: Hydrotite for segment lining tunnel is not self-adhesive product. A chloroprene rubber based adhesive needs when installing on the precast concrete.

■ BASICAL PHYSICAL PROPERTIES

Item	Unit	Hydrophilic Rubber References	Non-hydrophilic Rubber References	Test Method
Hardness	(JIS, SPRING A)	40±5	45±5	JIS K 6253
Tensile Strength	MPa	Min.3.5	Min.6.0	JIS K 6251
Elongation	%	Min.600	Min.400	JIS K 6251
Expansion rate	%	Min.100		In House Test ^(※)

※Expansion condition is at 23°C in distilled water for 28 days.

Note: Specimen: Pressed rubber sheet made of the same compound of the products

Note: The references shown above may be changed without notice to improve product quality

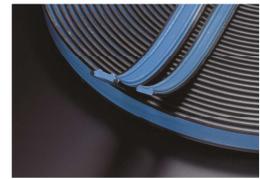


<Low Expansion Type>

■ MAIN USAGE

•Segment Lining Tunnel

Note: These items should not be used for site formed construction joints like Hydrotite CJ.



■ MAIN ITEMS

	SHAPE	CODE	SIZE (mm)	PACKING
Composite Structure		DST-0420-25-I DST-0520-35-I	H4×h2.5×w20 H5×h3.5×w20	20M/R×5Reels/Carton
		DST-0522-15-I-GR	H5×w22	15M/R×5Reels/Carton
Single Structure		RST-0420-20-I RST-0520-35-I	H4×h2.5×w20 H5×h3.5×w20	20M/R×5Reels/Carton
		SST-0220 SST-0320	H2×w20 H3×w20	25M/R×4Reels/Carton

Hydrophilic Rubber Non-Hydrophilic Rubber

Note: Hydrotite for segment lining tunnel is not self-adhesive product. A chloroprene rubber based adhesive needs when installing on the precast concrete.

■ BASIC PHYSICAL PROPERTIES

Item	Unit	Hydrophilic Rubber References	Non-hydrophilic Rubber References	Test Method
Hardness	(JIS, SPRING A)	45±5	45±5	JIS K 6253
Tensile Strength	MPa	Min.3.9	Min.6.0	JIS K 6251
Elongation	%	Min.600	Min.400	JIS K 6251
Expansion rate	%	Min.200		In House Test ^(※)

※Expansion condition is at 23°C in distilled water for 28 days.

Note: Specimen: Pressed rubber sheet made of the same compound of the products

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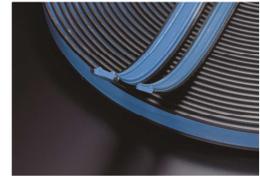


<Middle(High) Expansion Type>

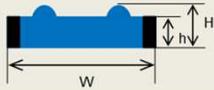
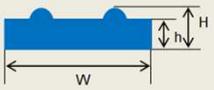
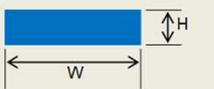
■ MAIN USAGE

•Segment Lining Tunnel

Note: These items should not be used for site formed construction joints like Hydrotite CJ.



■ MAIN ITEMS

	SHAPE	CODE	SIZE (mm)	PACKING
Composite Structure		DS-0420-25-I	H4×h2.5×w20	20M /R×5Reels/Carton
		DS-0520-35-I	H5×h3.5×w20	
Single Structure		RS-0420-20-I	H4×h2.5×w20	20M /R×5Reels/Carton
		RS-0520-35-I	H5×h3.5×w20	
		SS-0220	H2×w20	25M /R×4Reels/Carton
		SS-0320	H3×w20	

 Hydrophilic Rubber  Non-Hydrophilic Rubber

Note: Hydrotite for segment lining tunnel is not self-adhesive product. A chloroprene rubber based adhesive needs when installing on the precast concrete.

■ BASIC PHYSICAL PROPERTIES

Item	Unit	Hydrophilic Rubber References	Non-hydrophilic Rubber References	Test Method
Hardness	(JIS, SPRING A)	50±5	50±5	JIS K 6253
Tensile Strength	MPa	Min.2.45	Min.8.8	JIS K 6251
Elongation	%	Min.600	Min.400	JIS K 6251
Expansion rate	%	Min.500	-	In House Test ^(※)

※Expansion condition is at 23°C in distilled water for 14 days.

Note: Specimen: Pressed rubber sheet made of the same compound of the products

Note: The references shown above may be changed without notice to improve product quality



<Middle(High) Expansion Type>

■ MAIN USAGE

- Repairing Works, Existing Joints
- As a combination with gasket for Segment Lining Tunnel

Note: These items should not be used for site formed construction joints like Hydrotite CJ.



■ MAIN ITEMS

	SHAPE	CODE	SIZE (mm)	PACKING
Single Structure		RSS-040P	D4	20M/R×10Reels/Carton
		RSS-060P	D6	20M/R×10Reels/Carton
		RSS-080P	D8	20M/R×5Reels/Carton
Composite Structure		RSS-1006D	D10	20M/R×3Reels/Carton
		RSS-1208D	D12	20M/R×2Reels/Carton
		RSS-1409D	D14	15M/R×2Reels/Carton

Hydrophilic Rubber

Non-Hydrophilic Rubber

Note: Hydrotite RSS type is not self-adhesive product.

■ BASIC PHYSICAL PROPERTIES

Item	Unit	Hydrophilic Rubber References	Non-hydrophilic Rubber References	Test Method
Hardness	(JIS, SPRING A)	50±5	50±5	JIS K 6253
Tensile Strength	MPa	Min.2.45	Min.8.8	JIS K 6251
Elongation	%	Min.600	Min.400	JIS K 6251
Expansion rate	%	Min.500	-	In House Test ^(※)

※Expansion condition is at 23°C in distilled water for 14 days.

Note: Specimen: Pressed rubber sheet made of the same compound of the products

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DURABILITY

On going long Term Water Sealing Test

As of DEC./2021

No.	Dimensions thick x width(mm)	Gap of both flanges (mm)	Year.Month						
			1982.1	83.1	84.1	85.1	~	2019.1	20.1
1	3 x 20	2	----- ----- ----- ----- ----- ----- -----						
2	5 x 20	4	----- ----- ----- ----- ----- ----- -----						
3	3 x 20, 5 x 20	3	----- ----- ----- ----- ----- ----- -----						

*Water Pressure: 0.15MPa

*No.1-2: Specimen is stuck on bottom flange that has no groove.

*No.3: Specimen is stuck on both flanges that have grooves (2mm depth)



IMPORTANT PRECAUTIONS

1. Keep out of reach of children.
2. Do not swallow, and avoid eye / skin contact.
3. Store in a cool, dark and dry place.
4. Do not expose water or sunlight before/after applying.
5. DO NOT use Hydrotite on casting concrete joints in order to avoid concrete cracking which may be caused by the expansion pressure of Hydrotite.
6. Do not apply to an external and /or a surface position.
7. Before applying an adhesive, especially a solvent type rubber adhesive, to the concrete layer, carefully read the instructions on ventilation, storing etc. for each adhesive to avoid accidents such as fire, explosion, intoxication, etc..

WARRANTY

All statements regarding this product are based upon procedures and tests which we believe are reliable, and may be changed for improvement of quality without any notice; but it will be the sole responsibility of the customer and/or end user to use this product property, and therefore assume all risk and liability in connection therewith. C.I.TAKIRON Corporation Warrants its products to be of good quality and will replace product proved to be defective. In no instance will C.I. TAKIRON Corporation be liable for labor costs or incidental damage associated with the use of this product, unless stated in a warranty for a specific project.

C.I. TAKIRON Corporation

(Formerly known as C.I.Kasei Co., Ltd.)

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