

Hydrotite - Hydrophilic Water Swelling Material –

FEATURES

Hydrotite is well known as a superior water sealant. Unlike conventional water sealants, 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

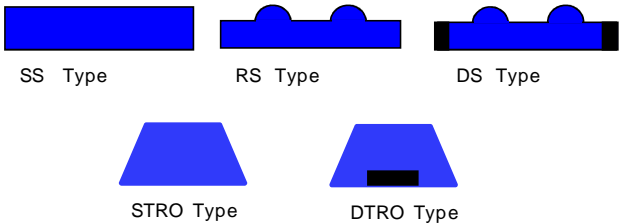
Varied Product Range provides a Wide Variety of Applications

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.

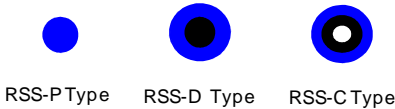


TYPICAL PROFILES

Main usage: Segment Lining Tunneling



Main usage: Repairing Works Existing Joints, etc.

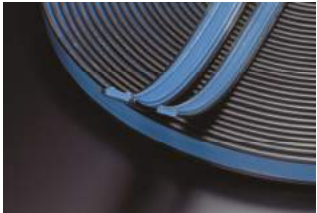


<Super-Low expansion type>

■ MAIN USAGE

• Segment Lining Tunneling

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



■ MAIN ITEMS

	SHAPE	CODE	DIMENSIONS (mm)	PACKING
Composite Structure		DTRO-0415-10	4×15×10	20M/R×5Reels/Carton
		DTRO-0515-10	5×15×10	
Single Structure		STRO-03515-10	3.5×15×10	20M/R×5Reels/Carton
		STRO-0415-10	4×15×10	
		STRO-0518-12	5×18×12	

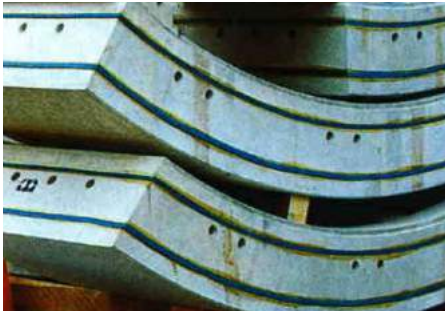
Hydrophilic Rubber Non-hydrophilic Rubber

■ BASIC PHYSICAL PROPERTIES

Super-Low expansion type

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

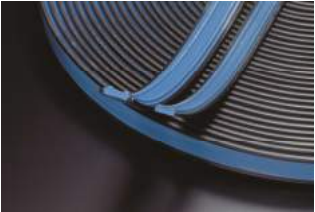


<Low expansion type>

■ MAIN USAGE

• Segment Lining Tunneling

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



■ MAIN ITEMS

	SHAPE	CODE	DIMENSIONS (mm)	PACKING
Composite Structure		DST-0420-25-I	t4xh2.5xw20	20M/Rx5Reels/Carton
		DST-0520-35-I	t5xh3.5xw20	
Single Structure		RST-0420-20-I	t4xh2.5xw20	20M/Rx5Reels/Carton
		RST-0520-35-I	t5xh3.5xw20	
		SST-0220	t2xw20	25M/Rx4Reels/Carton
		SST-0320	t3xw20	

Hydrophilic Rubber Non-hydrophilic Rubber

■ BASIC PHYSICAL PROPERTIES

Low expansion type

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.

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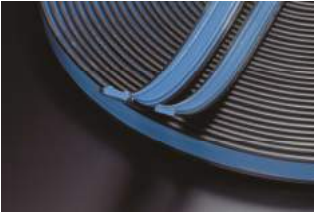


<Middle expansion type>

■ MAIN USAGE

• Segment Lining Tunneling

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	t4xh2.5xw20	20M/Rx5Reels/Carton
		DS-0520-35-I	t5xh3.5xw20	
Single Structure		RS-0420-20-I	t4xh2.5xw20	20M/Rx5Reels/Carton
		RS-0520-35-I	t5xh3.5xw20	
		SS-0220	t2xw20	25M/Rx4Reels/Carton
		SS-0320	t3xw20	

Hydrophilic Rubber Non-hydrophilic Rubber

■ BASIC PHYSICAL PROPERTIES

Middle expansion type

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

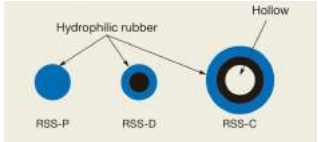


<Middle expansion type>

■ 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-060P	D6	20M/Rx10Reels/Carton
		RSS-080P	D8	20M/Rx5Reels/Carton
Composite Structure		RSS-1006D	D10	20M/Rx3Reels/Carton
		RSS-1208D	D12	20M/Rx2Reels/Carton
Composite Structure with Hollow		RSS-1007C	D10	20M/Rx3Reels/Carton
		RSS-1209C	D12	20M/Rx2Reels/Carton

Hydrophilic Rubber Non-hydrophilic Rubber

■ BASIC PHYSICAL PROPERTIES

Middle expansion type

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.
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DURABILITY

Ongoing long term water sealing test

As of Dec./2017 the tests are ongoing.

No.	Dimensions (thick x width mm)	Gap of both flanges (mm)	Year. Month	
			1982.1 '83.1 '84.1 '85.1	~ 2015.12 '17.12 '17.12
1	3X20	2	----- ----- ----- ----- -----	
2	5X20	4	----- ----- ----- ----- -----	
3	3X20, 5X20	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)



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 properly, 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.