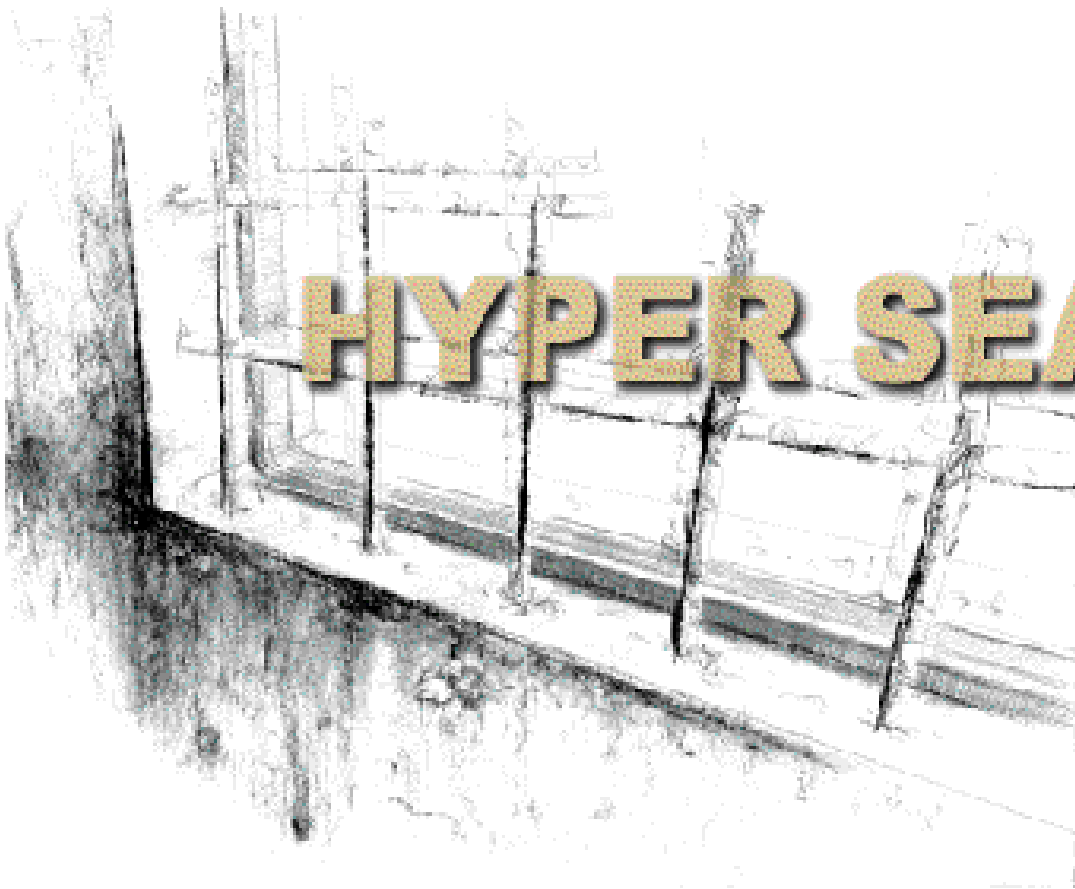


HYDROPHILIC WATER STOP



Obtained ISO 9002 Certificate





HYPER SEAL DP series

A complete Range of High Performance Hydrophilic Waterstop

Uses

Hydrophilic waterstop can be applied against existing concrete and are simply installed by nailing or using a hydrophilic adhesive. In contact with water, hydrophilic strips react and swell by up to 300% of their original dimensions to form a compression seal.

Hydrophilic strips are suitable for installation in low movement construction joints.

HYPER SEAL is used primarily for foundation walls slabs, slabs-on-grade, precast wall panels, manholes, pipe connections, box culverts, utility and wet wells, and portable water tanks.

Benefits

Active protection – HYPER SEAL hydrophilic waterstop swell in contact with water to form an effective compression joints.

Simple application and jointing techniques.

Slow expansion rate to prevent damage to freshly placed concrete during curing.

Retains original shape after repeated and contraction.

Swelling properties unaffected by long term wet/dry cycling.

Sustains effective seal in wet conditions.

Description

HYPER SEAL is made high performance modified rubber strips. The swelling action is the result between water and hydrophilic groups which are part of the HYPER SEAL molecular structure. Expansion of the waterstop creates a positive seal against the face of the concrete joint and prevents the water entry into the structure through the protected joint.

Installation

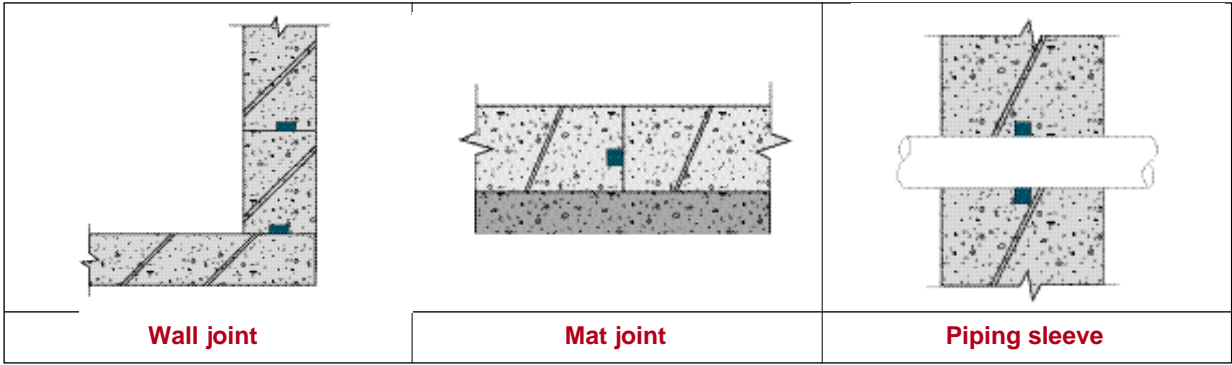
Where the substrate is uneven, HYPER SEAL can be fastened in place using masonry nails at approx. 300mm centers. Care should be taken however to ensure that the substrate has sufficient strength to enable a mechanical fixing to be securely driven without damaging the HYPER SEAL.

Alternatively, a groove can be cast into concrete to facilitate application.

HYPER SEAL is suitable for use in most weather conditions, but heavy rain or prolonged immersion will cause premature swelling. Should this occur, it will be necessary to allow it to dry out, or be dried with a hot air gun before concrete pouring takes place.

HYPER SEAL DP2010 and HYPER SEAL DP2010N should not be used in expansion joints, or any concrete section of less than 150mm width.

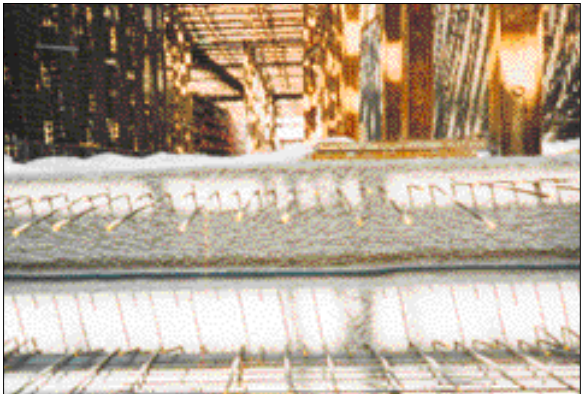
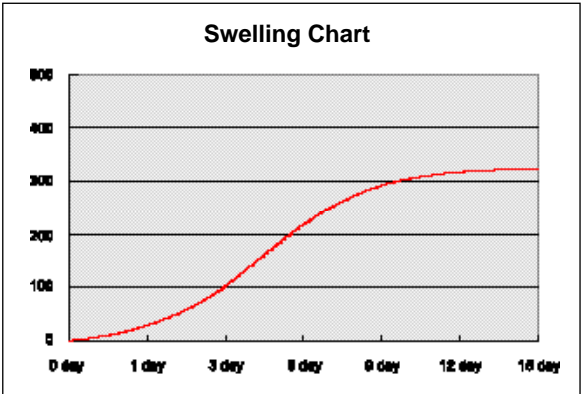
Application method



Health and Safety

There are no known hazards associated with HYPER SEAL during normal use. Refer to product Safety Data Sheet for detailed information.

Installation and Swelling chart



Physical properties

Test item	Test result	Test method
Service Temperature Range	-30°C to 50°C	KS M 6518
Shore A Hardness	40 ~ 50	
Tensile Strength	20kgf/cm ²	
Elongation	450% above	
Expansion volume rate	300% above	
Color	Black	
Size	DP-2003 : 20mm X 3mm (30m X 10 roll/box) DP-2004 : 20mm X 4mm (25m X 10 roll/box) DP-2005 : 20mm X 5mm (20m X 10 roll/box) DP-2010,(N) : 20mm X 10mm (10m X 10 roll/box) (N) option : center stainless net insert	

HYPER STOP DB series

Hydrophilic Bentonite for in-situ concrete

Uses

A flexible butyl rubber and swellable clay waterproofing compound that swells upon contact with water to form a long-lasting compression seal in non-moving concrete joints. HYPER STOP requires a 2-inch minimum clear coverage from the face of the concrete. HYPER STOP is used primarily for foundation walls slabs, slabs-on-grade, precast wall panels, manholes, pipe connections, box culverts, utility and burial valuts, wet wells, and portable water tanks.

Advantage

Easy to install by bonding nailing or casting into joint face.
Factory made connectors enable full integration of swellable and exciting waterstop networks.
Swelling properties uneffected by long term wet/dry cycling.
Sustains effective seal in wet conditions.



Description

HYPER STOP is high performance hydrophilic bentonite waterstop.
HYPER STOP is made high performance modified bentonite strips. The swelling action is the result between water and hydrophilic groups which are part of the HYPER STOP molecular structure. Expansion of the waterstop creates a positive seal against the face of the concrete joint and prevents the water entry into the structure through the protected joint.

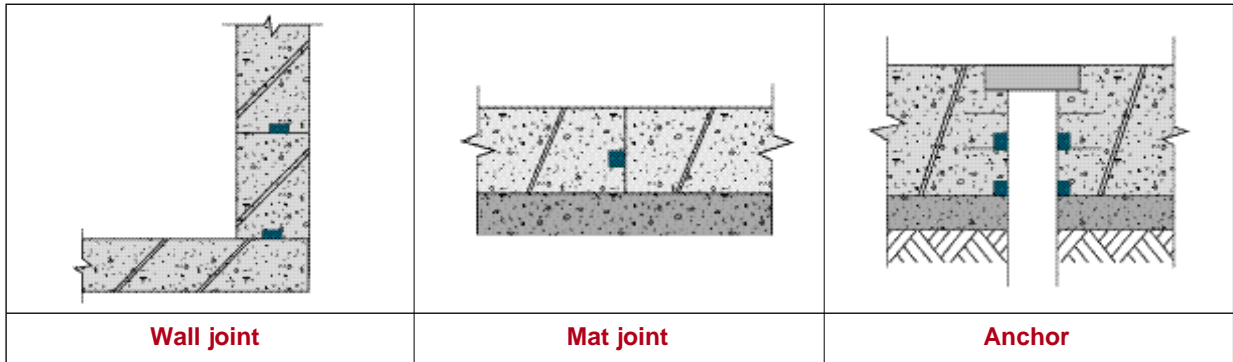
Technical support

Provides a technical advisory service for on-site assistance and device on curving membrane selection, evaluation trials dispensing equipment. Technical date and guidance can be provided for HYPER STOP and other products for in the construction.

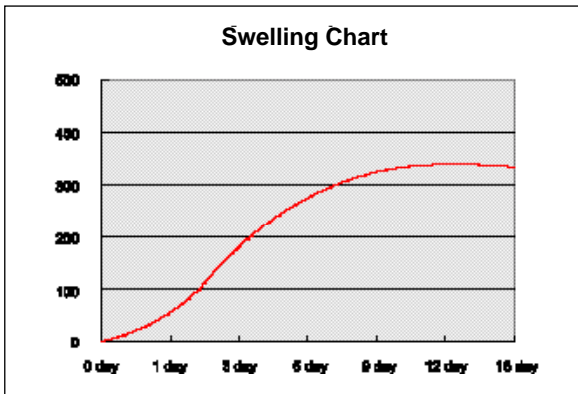
Application instructions

The waterstop may be installed either into a groove cast in the concrete or directly onto the concrete surface. Full application instructions, including the use of the ancillary products, are contained in a separate application leaflet which is available on request.

Application method



Swelling Chart and Installation



Physical properties

Test item	Test result	Test method
Specific gravity at 25°C	1.35	ASTM D-71
Heat-resistance Test		
Variation Rate of Length	± 5%	
Deformity of Appearance	No Abnormality	
Cold-resistance Test	No Abnormality	
Color	Black	
Expansion volume rate	250%	
Size	DB-2015, (N) : 20mm X 15mm (6m X 7 roll/box) DB-2515, (N) : 25mm X 15mm (6m X 6 roll/box) DB-2519, (N) : 25mm X 19mm (5m X 6 roll/box) (N) option : center fiber net insert.	



HYPER SEAL DX series

Dual structure of PVC plate and Hydrophilic rubber

Uses

HYPER SEAL DUAL WATERSTOP DX Series has been specially designed to provide significant advantage over co extruded hydrophilic waterstops. This new system enables the PVC waterstop to be fixed on site in the usual way and provides the additional benefit of exposing two hydrophilic elements by removing the security tape just before the concrete is poured, thus avoiding the common problem of hydrophilic pre swell on site.

Description

HYPER SEAL DUAL WATERSTOP DX Series has designed to combine the latest developments in hydrophilic technology with the traditional benefits of PVC waterstop. HYPER SEAL DUAL WATERSTOP is suitable for use in contact with portable water and can be used in situations where salt water, sewage are prevalent.

Shape

	Size (mm)			Shape
	Width	Thickness	Length	
DX-150	150	5	20 m	
DX-200	200	7	20 m	
DX-230	230	5	20 m	

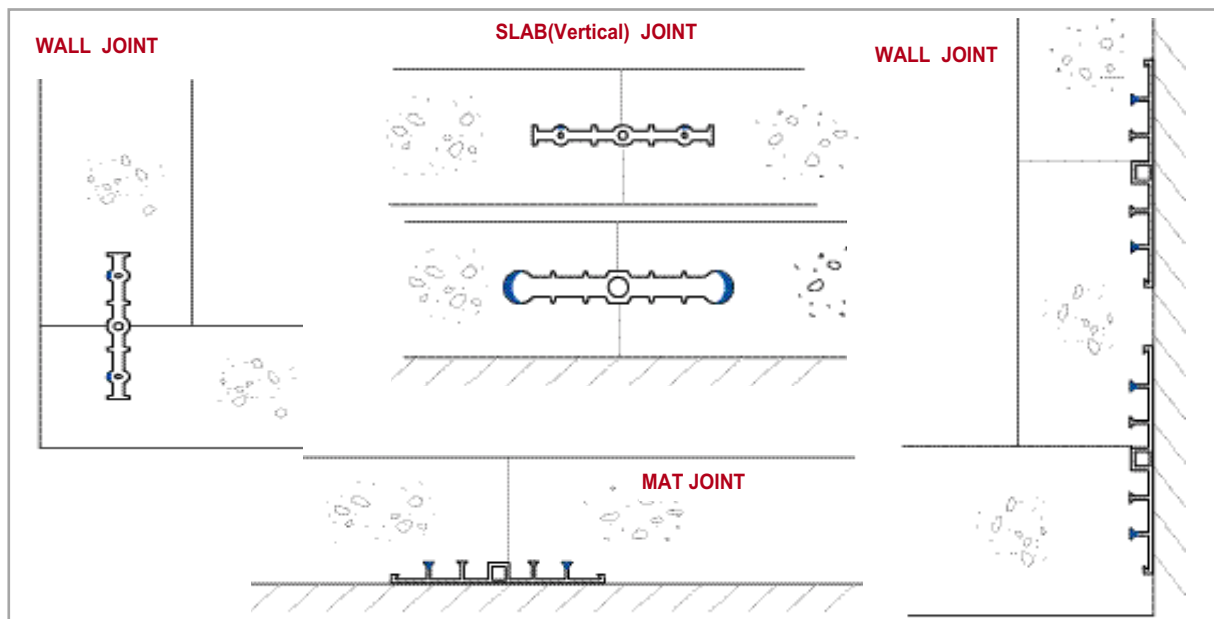
Hydrophilic Rubber

Material

- Item name :** HYPER SEAL DUAL WATERSTOP (DX-150, DX-200, DX-230)
- Usage :** Slab joint of underground structures
Vertical joint, Expansion joint, wall joint
- Composition :** PVC plate and Hydrophilic rubber

Install method

- Put DUAL WATERSTOP between square lump of fix center valve in center.
- Do 1st concrete
- Remove the square lump around the DUAL WATERSTOP.
- Put lumbars and 2nd concrete in opposite side.
- Process DUAL WATERSTOP part with electric welding.



Physical Properties

Test Item	PVC Plate	Hydrophilic Rubber	Test Method
Hardness (Hs)	65		KS M 3805
Tensile strength (kg f/cm ²)	120		
Elongation (%)	250		
Expansion volume (%)		100 above	KS M 6518

Warning

- Avoid dust, oil, lubricant before use.
- Complex waterstop should be fixed in right place during concreting.
- Keep in mind lest hydrophilic rubber part should touch rainwater or filled water.
- Do lest should apply unreasonable force on hydrophilic rubber part.

HYPER SEAL DPS-200

One component hydrophilic Sealant

Uses

HYPER SEAL DPS-200 can be used as an adhesive for bonding HYPER SEAL strips or as problem-solving hydrophilic in difficult access areas including Sealing around joints in pre-cast manhole covers cable ducts and pipe, etc.

Sealing around pre-cast segments.

Sealing between rough surfaces, e.g. slurry walls and concrete slabs.

Sealing around H-beams and other penetration through concrete structures.

Sealing around conventional rubber and plastic waterstop to provide belt and braces seal prior to concrete pour.



Advantages

Fast curing : enables early concrete pour and rapid return to service. Allows hand-applied concrete cover within 8 hours on emergency repairs and large - scale concrete pour after 24 hours

Excellent seal : on rough concrete: Gives improved water tightness. Plugs inequalities in rough concrete to produce a tight seal

Excellent adhesion : Quick and easy to apply to a variety of damp and uneven joint surfaces remaining firmly in place during concrete pour

Water swellable : Expands by 100% producing a watertight compression seal

Durable : Excellent wet/dry cycling retaining elastic character and swelling performance due to high tolerance of the cementitious environment

Description

HYPER SEAL DPS-200 is a grey, elastic water-swellable paste which is applied like a sealant. The hydrophilic properties of HYPER SEAL DPS-200 display good consistency in swell rate during repeated wet/dry cycling. Expansion of the product on contact with water creates a positive pressure against the faces of the concrete joint, thus preventing the passage of water.

Problem solving

For waterproofing in problem and inaccessible areas, such as around joints in pre-cast manhole covers, cable ducts, around pipes, between slurry walls and concrete slabs and sealing around H beams. Can also be used as an adhesive for the HYPER SEAL range of hydrophilic waterstop.

High performance

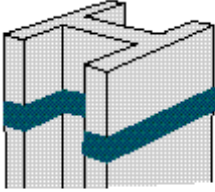
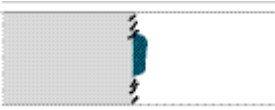
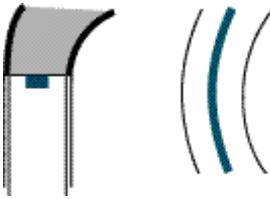
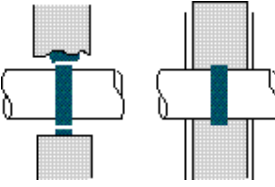
fast curing, enables early concrete pour and rapid return to service excellent seal on rough surfaces, promoting improved water tightness expand by 100% when in contact with water, giving a watertight seal.

Durable

High wet/dry cycling performance-HYPER SEAL DPS-200 retains it's elastic characters and swellable performance due to a high tolerance of the cementitious environment.

Applications

Cut conical tip off cartridge end-thread, screw on nozzle and cut to required size. Place HYPER SEAL DPS-200 into sealant gun and apply like a conventional sealant. Extrude a bead of not less than 15mm diameter onto the substrate, ensuring that there is no break in the bead.

<p>H type steel surround</p> <p>No gaps are formed at corner Installation is simple</p>	
<p>Concrete installation joint</p> <p>Installation is possible at rough surface</p>	
<p>Tunnel construction joint</p> <p>Easy to installation Good finish</p>	
<p>Piping Sleeve</p> <p>Bars can be installed up to the pipe surrounds so as to form one wall</p>	

Return to service

After application, allow 30minutes before re-establishing any running channels. A minimum of 8 hours (depending on ambient temperature conditions) should be allowed before applying hand-placed concrete and 24 hours is recommended for large concrete occurs where there is no guarantee that concrete will not be poured directly onto the seal. HYPER SEAL DPS-200 should be protected from heavy rainfall whilst curing to prevent premature expansion.

Technical support

DAERYONG offers a comprehensive range of high performance, high quality, construction products all backed by a ISO 9002 registered quality scheme. DAERYONG offers a technical support package to specifies and contractors with unrivalled experience in the industry.

Properties

Form	Elastic water-swellable paste
Color	Gray
Tack-free time	Approximately 1 hour
Cure rate	3mm in 24 hours
Expansion volume	100%
Concrete pour	Allow between 2 to 8 hours (see "Application instructions")

Limitations

HYPER SEAL DPS-200 should not be used for expansion jointing or for joints subject to significant repetitive movements. HYPER SEAL DPS-200 should be positioned to ensure that there is a minimum of 70mm concrete cover to accommodate pressure developed during the swelling process. HYPER SEAL DPS-200 will establish a firm bond to the concrete however, as with any hydrophilic watetstop, care should be taken during concreting to avoid pouring directly onto the seal.

Packaging

High wet/dry cycling performance-HYPER SEAL DPS-200 retains it's elastic characters and swellable performance due to a high tolerance of the cementitious environment.

Coverage

Each 320ml gun cartridge will provide enough material for approximately 1.5 meter when gunned to form a constant 16mm diameter bead.

Health and Seagate

HYPER SEAL DPS-200 may cause sensitization by skin contact. Avoid contact with skin and eyes. Wear suitable gloves and eye/face protection. Use only in well ventilated areas.

HYPER SEAL DPS-500

*Liquid hydrophilic PU water-stop
for sheet pile interlocks*

Description

HYPER SEAL DPS-500 is Liquid hydrophilic Polyurethane water-stop for sheet pile interlocks.

Specification

Perfect Water stop sealing

Work safety : Thanks to elasticity and restoring force, actively deals with deformation of the structure.

Easy application(with one-component system) : Being lightweight and having good adhesion to any structure makes for easy to work even in narrow spaces.

A Wide range of application : possible to apply in any weather or at any sites.

Semi-permanent life : Retains its original form even after repeated expansion.

Properties

Appearance : Light-Yellowish translucent liquid

Viscosity : $5,000 \pm 2,000$ cPS/25°C

Solid Content(%) : 85 ± 2

Solvent composition : Xylene, Ethyl Acetate

Specification of Curing Film

Appearance : semi translucent and soft film

Physical Properties

– Tensile Strength(kgf/cm²) : over 10

– Elongation(%) : over 450%

Curing Time : inner 24hrs (RT, 75%RH)

Swelling Ratio(%) : over 400%
(2Day dipping in water at RT)

Handling & Storage

HYPER SEAL DPS-500 can be stored for 6 months at below 25°C.

Please avoid exposure to humidity or temperature above 50°C for long time.

Please avoid contamination of water and alcohol.

The product is very sensitive to air, therefore you must use all the product after opening the container.

Packing : 18kg Can



HYPER SEAL DPS-100S/NS

One Component PU Sealant

Description

HYPER SEAL DPS-100S/NS are One-Pack Polyurethane Sealant for road(Self-leveling type:S) and for construction(non-sag type:NS).

Features

- One-Pack Polyurethane System.
- Easy application and no problem with mixing because of one-packing PU system.
- Good elasticity and restoration prevents movement of substrate on thermal change condition.
- Even after vulcanization, has initial flexibility gives strong resistance against the continuous restore and elongation.
- Good durability.
- Decrease of construction cost and time.
- Extended use of various thermal range.(20~79°C)

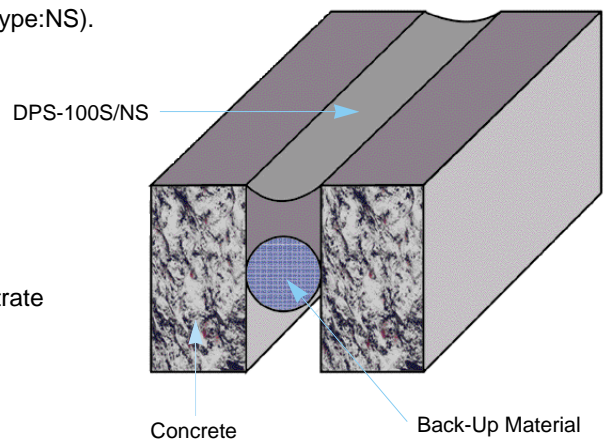
Application

- Metal frame circumference sealing.
- Various joint sealing of PC or RC.
- Repairing cracked area of concrete with ALC panel.
- Various joint sealing in road.

Properties of Goods

- Appearance** : Colored viscose liquid
- Solid Content** : > 98% (heat loss weight : < 2%)
- Density** : $1.4 \pm 0.1(\text{g}/\text{cm}^3)$
- Curing method** : humidity cure
- Tack Free Time** (hrs/23°C × 50%RH) : max 4~5
- Curing Time** (hrs/t = 2mm/23°C × 50%RH) : max 24

Cross Sectional View



Chemical composition

- DPS-100** : Modified Polyurethane resin.
- Color** : Gray, White, Dark Brown, Ivory, Black.

Properties of Cure Film

- Hardness** (Shore A) : < 40
- Tensile Strength** (kgf/cm²) : < 30
- Elongation** (%) : > 500
- Tear strength** (kgf/cm) : < 20

Packing

- 12kg Can, 1 BOX(800g × 20EA)



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