HYPER SEAL DPS-500

ONE COMPONENT PU SEALANT FOR SHEET PILES

Description

DPS-500 is hydrophilic polyurethane waterstop of liquid for sheet pile interlocks.

Use

Because of its high expansion coefficient (5 times) and its quick expansion in the presence of moisture, DPS-500 is ideally suited for use as a water-stop on sheet piles.

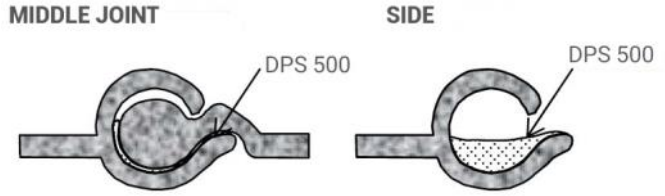
Installation

Clean dirt and debris from the interlock area of the pile DPS-500 is poured into the interlock area of sheet pile to a depth of 5mm. The sheet piles can be driven after a curing time of approximately 24 hrs.

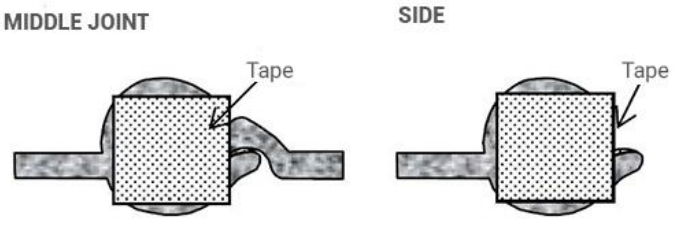
Treated sheet-piles should be protected from moisture before they are driven. If long term storage is anticipated it would be best to invert the sheet pile and cover to protect from moisture.

After approximately 24 hrs of curing time the sheet piles can be driven. The DPS-500 will cure enough on the surface in that time to hold it in place. The driving procedure will break the cured surface and allow the DPS-500 to fill the voids in the interlock area. Contact with moisture will cause expansion and from a complete waterstop.

Installation Description

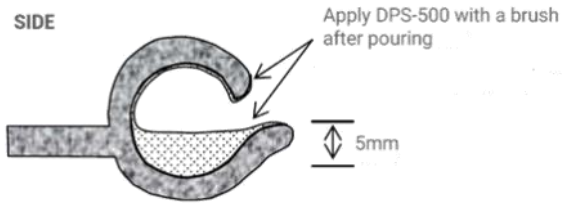


Place a piece of tape over each end of the interlock to prevent the DPS-500 from flowing out of the interlock. Fill the middle joint with DPS-500. If the material overflows it will not be a problem. The side joint should be filled to a depth of approximately 5mm.

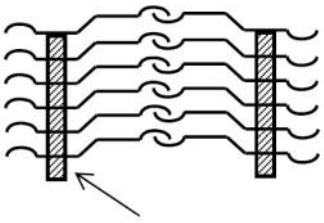


TAPE ON EACH END

Brushing the DPS-500 to the sides of the interlock area after pouring the DPS-500 to a depth of 5mm is recommended as shown,



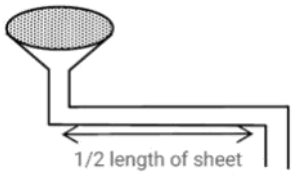
Place blocks between each sheet to allow access for the application of DPS-500 if the DPS-500 is to be applied when the sheet piles are in a stacked position.



wooden block between sheet piles

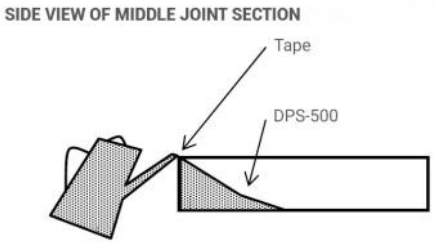
If the sheet files are in a stacked configuration, Use the following application procedure to fill the middle joint. Stack the sheet piles as level as possible. Fill the middle joint on the top sheet pile from the sides and measure the amount of DPS-500 and the time necessary to fill the joint. The DPS-500 will level itself into the interlock area. With the amount and time measurement it is possible to fill the remaining sheet piles without the ability to visually check the result.

To fill the middle joint on sheet piles that is stacked. Use a funnel with pipe attached as shown to reach in below the top set of sheet piles.



An ordinary steel or copper pipe can be used if the above apparatus is not available. The primary purpose is to place the DPS-500 near the center of the sheet pile and allow the DPS-500 to flow to each side. If may be necessary to fill from both ends or from the center.

The method of filling the center joint id dependant on how the sheet piles are stacked.



Information

Contact with water will induce cured DPS-500 to expand five times by volume and effectively prevent water intrusion in the interlock areas of sheet piles. In it's cured state DPS-500 can withstand a hydrostatic head of approximately 50m. It adheres well to the sheet pile and does not tear off during the driving process.

DPS-500 cures into a rubber like state. It does not contain any toxic solvents and is safe to

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handle. The performance of DPS-500 will not degrade under continuous water contact. It is a flame-resistant, environmentally safe product. Heat build up during the driving process will not affect the DPS-500.

Cured DPS-500 can be removed from the sheet piles by applying water to the retrieved sheet piles. Apply water to the interlock area and peel the DPS-500 from the interlock.

DPS-500 performs in aggressive ground water substances and has good resistance to a number of chemical contaminates.

Properties of DPS-500

Apperance	Light-Yellow transference liquid
Viscosity	5,000±2,000cPS at 25°C
Solid Content (%)	85±2%
Solvent Composition	Xylene

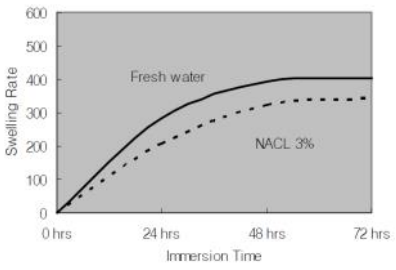
Properties of DPS-500

Apperance	Semi transference and soft film
Physical Properties	Tensile Strength(kgf/㎠): over 10
Curing Time	Inner 24hrs(RT, 75%RH)
Swelling Rate	Over 400%(2 days in water at RT)

Handling & Storage

Hyper Seal DPS-500 can be stored for 6 months at below 25 . Please avoid exposure to humidity or temperature above 50 for long time. Please avoid contamination of water or alcohol. The product is very sensitive to air, therefore you must use all the product after open the container. Packing: 20kg pail can

Expansion Graph



Cleaning the interlock part of sheet pile with brush or air blow

Attach a piece tape over each end of the interlock to prevent the DPS-

The piles may be driven after the DPS-500 has fully cured or after the DPS-500 has cured to at least “Gel” state. Curing time is

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Revision 07.2023