



PILELOCK Quick-dry

Steel sheet piles are a common solution for watertight walls in river and harbor sealing works. However, steel sheet piles alone are not sufficient for achieving complete watertightness. PILELOCK Quick-dry is a revolutionary product that significantly enhances the watertightness of steel sheet piles. When applied to the joints of steel sheet piles in advance, the coating film absorbs moisture from the surrounding environment and expands to fill the gaps between the joints, providing an extremely high level of watertightness.

Overview

1. PILELOCK Quick-dry is a swellable, waterproofing material for steel sheet piles in the form of a fluid paint. It is made of a synthetic resin base, superabsorbent polymers, fillers, solvents, and other ingredients.
2. PILELOCK Quick-dry should be applied to joints at least one day prior to installation and allowed to dry naturally overnight or for a longer period if necessary, in order to form a tough, elastic coating film. The coating film expands up to 20 times in 24 hours after casting due to moisture in the surrounding environment and the action of superabsorbent polymers, filling the gap at the joint and demonstrating water resistance of 0.5 MPa (equivalent to 50 m of water depth) or more.

Features

1. The high swelling ratio significantly enhances the water-tightness of steel sheet piles.
2. If applied by the day before installation, it can be constructed in the same manner as regular steel sheet piles without adversely affecting operations such as installation and extraction.
3. The dried coating film is elastic, making it resistant to peeling during installation and providing a high water-tight effect. Even if partial peeling occurs, the high swelling ratio allows the surrounding sealing material to cover the damaged area and maintain the water-tight effect.
4. The water eluted from the coating film does not negatively affect the surrounding water quality.
5. The coating film can be easily removed with a scraper or water jet after extraction.

Application Method

1. Arrange the steel sheet piles to facilitate handling.
2. Remove any floating rust, mud, oil, and moisture from the joints using a scraper, rag, or similar tool.
3. Thoroughly stir the quick-drying type pile lock, pour it into the joints using an oil jug, and spread it evenly over the joints with a brush.
4. After allowing it to dry for at least one night, proceed with the installation work. If there is a risk of rain during the drying period, cover the area with a sheet to protect it from water contact.
5. The water-tightness is effective the day after installation, allowing for drainage, excavation, and other work to be performed.

Usage Precautions

1. In low temperatures, drying may take longer.
2. Stop the application work during rainfall or severe weather conditions that prevent handling of the steel sheet piles.
3. As it contains organic solvents, handle in a well-ventilated area and keep away from open flames. Do not use in enclosed spaces.
4. Seal the container tightly and store it in a place below 40°C, away from direct sunlight, fire, and heat sources.

※ For more details, please request the Safety Data Sheet (SDS).



Photo1 Swelling state of Pilelock Quick-dry

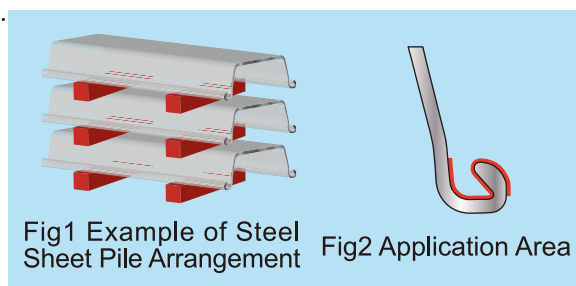


Fig1 Example of Steel Sheet Pile Arrangement

Fig2 Application Area

Table1 Standard Application Quantity

Type of Sheet pile	Quantity (Both side total / 1m)
II · II w	0.36kg
III · III w · IV · IV w · VL	0.40kg
VI	0.44kg



Photo2 Installation of Steel Sheet Piles

