

HOESCH INTERLOCK SYSTEM (DBP 44 27561; EP 0 695 832).

The HOESCH interlock seal system is injected into the sheet pile interlocks at the factory. It consists of a machine-profiled seal in the free interlock and an injected seal, adapted to the interlock gap, in the factory-assembled interlock. An appropriate primer ensures good adhesion in the interlock and prevents under-rusting.

The seal in the interlock is designed in such a way that when the sheet pile is driven in, restoring forces are activated in the sealing material which seal the interlock gap in the desired area (compression seal). The arrangement of two sealing lips in the interlock ensures double security of the sealing system. The pile-driving interlock, into which the next sheet pile provided with a profiled seal is slid in, is manipulated into a wedge shape to allow easy sliding in. For continuous pile driving, the pile driving direction of sealed sheet piles must therefore be specified in a pile driving plan prior to construction and adhered to on site.

Material Properties

The seal's material is a polyurethane, which is resistant to aging and weathering, permanently elastic and resistant to water, seawater, normal sewage, mineral oils, numerous acids and lye. In landfills and contaminated sites, the composition and concentration of pollutants varies greatly. HSP Hoesch Spundwand und Profil GmbH has tests carried out for such applications to verify the resistance of the seals. The corresponding test certificates for the environmental compatibility of the sealing materials are all available.

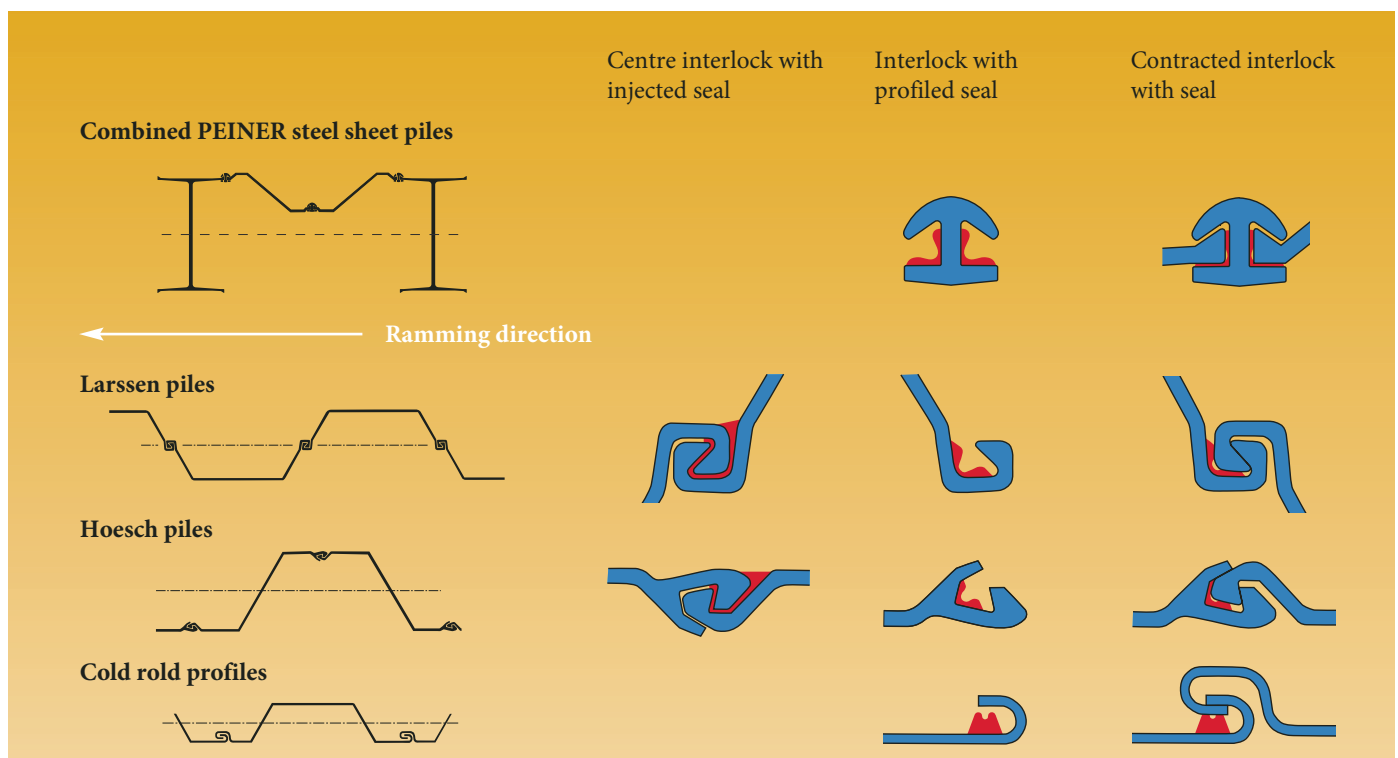
Product details

Basis:	Polyurethane/Epoxy resin
Solvent:	None
Color:	Red/Brown
Elongation at break:	approximately. 100%
Flashpoint:	100° C

Pile Driving Methods

Choice of pile driving methods:

Sheet piles with HOESCH interlock sealing system should preferably be driven with impacting equipment. Under certain conditions, vibratory driving is also possible. For this, the soil must have good vibration properties. Moreover, the sheet pile must penetrate the soil continuously and penetration times of 20 seconds per meter should not be exceeded. If the penetration time is longer or the sheet pile stops, impact driving should be continued. It is useful to cool the sliding interlock seal with water during vibration driving.

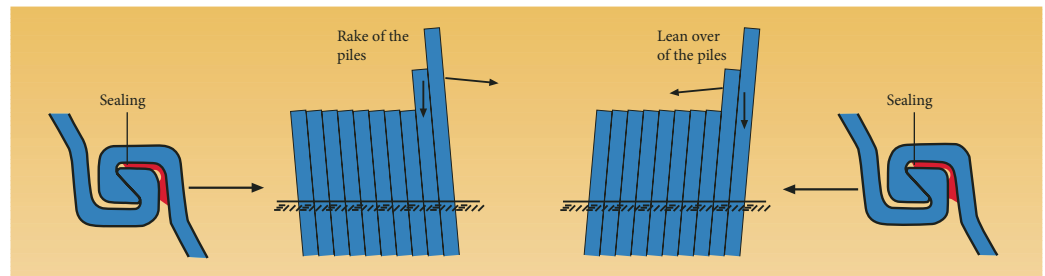
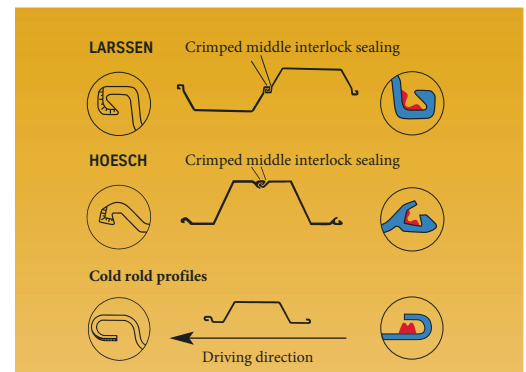
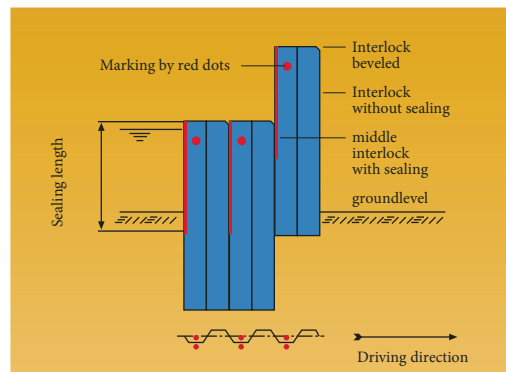


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The suitability of the interlock seal for pile pressing processes depends on the process selected. Gooimeer should be consulted in advance. In the winter months, it should be noted that the sheet pile temperate should not fall below -5°C , as ice crystal formation in the sliding interlocks can damage the profiled seal. The sealed interlocks must be kept free of snow and ice.



Redevelopment Guldener street, Cottbus



Redevelopment Altlast, Brohl-Lützing

Seal lubrication

The interlock seal must be lubricated with HSP GM lubricant before installation. The lubricant must be applied evenly (approximately 100 grams per meter of seal) over the entire length of the profiled seal, using a brush. Due to its biodegradability, HSP GM is also suitable for use in drinking water protection zones. The lubricant is water-resistant, cold-stable (down to -5°C) and has good adhesion properties. The supply of appropriate quantities of the lubricant is included in the delivery.

Guiding the sheet pile

When driving sealed sheet piles, special attention must be paid to the guidance to prevent leading, lagging or lateral inclination. The devices for correction must be placed in such a way that the interlock gap, in which the profiled seal is located, is not narrowed. Information on this can be found in DIN EN 12063 and EAU, E 118.

Driving direction

The direction of pile driving must be determined prior to installation of the sheet piles. When placing the double piles on the construction site, it must be ensured that, in the case of:

- Larssen sheet piles: the free interlock is driven first and the interlock with the seal is slid in;
- HOESCH sheet piles: the stud is driven in first and the sealed claw is threaded in;
- Cold roll profiles: the free interlock is driven in and the interlock with the seal is slid in.

The sheet pile must therefore be turned during sliding in, in order to have the unsealed interlock point in the direction of the driving. The position of the seal is marked by a colored dot on the head of the sheet pile. As a rule, the sheet piles should be driven continuously, but staggered driving is also possible. The assessment of the appropriate method should be made on the basis of the overall installation conditions.