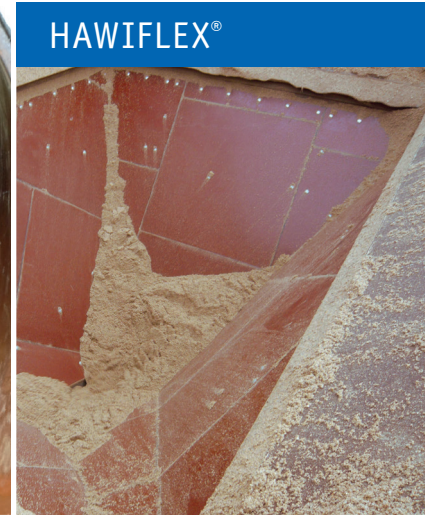


*The hardest
does not always win*



Lining of a tumbler



Lining of a sand bunker with Hawiflex® plates

In many cases, wear-resistant steel plates are used in concrete plants, sand and gravel pits and hard rock quarries, in the bulk good industry, and in mobile construction equipment. The materials used in these industries usually provide relatively high levels of hardness. For this reason, wear protection components often consist of a material that is harder than the conveyed material, following the approach that “the hardest wins”, as it were.

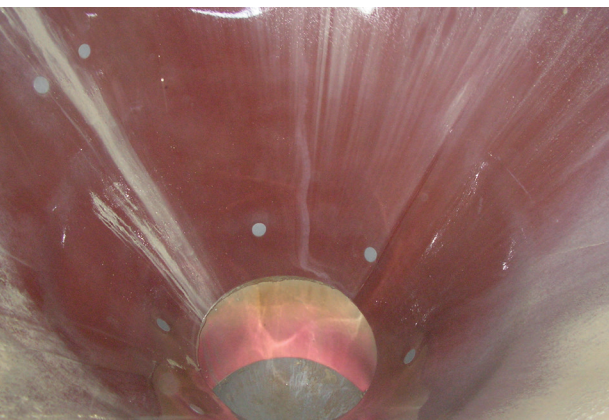
This method is associated with high impact forces that often result in an unwanted size reduction of the conveyed material. Plant and equipment generates a high amount of noise, which can be a nuisance to operators and neighboring residential areas. The wear-resistant plates are heavy and difficult to transport and assemble. Caking can become an issue at low temperatures above and below zero.

“Soft is better than hard” mode of action

For more than 45 years, habermann materials has been developing wear protection solutions on the basis of elastic polyurethane materials that are being marketed under the Hawiflex® brand. The mode of action of the Hawiflex® systems is as follows: The wear-inducing conveyed material penetrates the elastic material and is fed back into the conveying process in the relief phase. As a result, actual wear abrasion is significantly lower compared to systems equipped with hard materials.

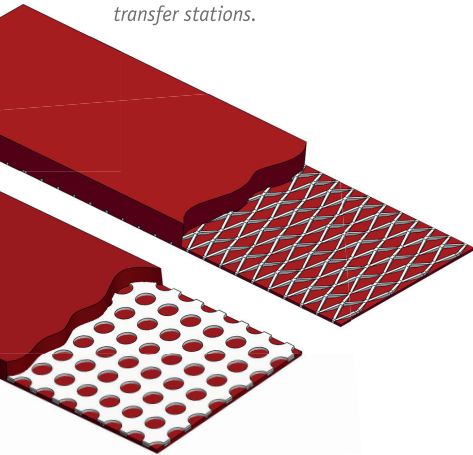
As part of its product offering, habermann materials provides plates with various fastening solutions to enable the installation of the Hawiflex® wear protectors in a wide range of plants and systems.

The first of these options combines the board with a perforated plate.



Originally the truck chute was made of steel plates where the problem was caking of concrete.

Plates with expanded metal: Compared to perforated plate, this solution enables the perfect adjustment of the board to existing component geometries. The board should ideally be used for the wear protection of cone-shaped and oval components, such as in chutes and hoppers, bucket conveyors, skips, elevator buckets and transfer stations.



.....
No adhesion problems!
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- • • The cast-in plate enables easy fastening, such as bolting, and reduces elongation and contraction to a minimum. The board's structural rigidity makes it possible to reduce the amount of sophisticated plate supports and enables lower-cost frame designs. The boards can be easily cut to size and drilled on the site. Wear-resistant fillers are available for joint sealing.

Perfect solution without drilling

The second option adds expanded metal to the board. Compared to perforated plate, this solution enables the perfect adjustment of the board to existing component geometries. The board should ideally be used for the wear protection of cone-shaped and oval components, such as in

chutes and hoppers (bucket conveyors, skips, elevator buckets and transfer stations).

The key feature of the third option, the wear-resistant functional glue-on Hawiflex® plate, is its rear coating. This special coating facilitates the gluing process and reduces the cost of re-coating by its predetermined breaking point. This easy-to-assemble functional plate is the perfect solution for components in which drilling or riveting is not possible.

The fourth and most favorably priced option is the Hawiflex® standard board. This board has no metal reinforcement and is thus very flexible. It can be easily cut to size and applied on-site.