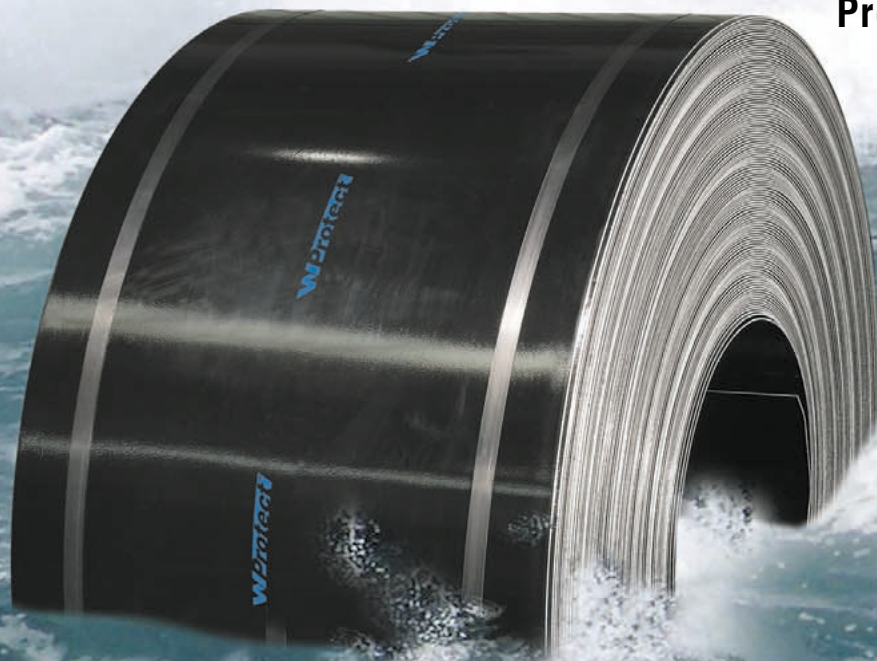


Wuppermann **WProtect™**

**Protection against corrosion
without the ifs and buts!**



strong + formable + noncorrosive

That which was previously inconceivable has now become reality: WProtect combines all three properties in one product. With steel as the base material, it is strong, solid and formable, offers the chemical-physical protection of zinc as well as the mechanical protection of a robust film on both sides. This makes WProtect almost indestructible and an excellent choice for applications in particularly aggressive environments.



WProtect – Technical Data

Steel	types	DX51D - DX53D, S220GD - S550GD, S315MC - S600MC
	Thicknesses	1.50 - 6.00 mm
	Widths	max. 750 mm
Zinc	coating	50 - 1200 g/m ²
Film	*Trenchcoat™ Polyolefin	
	Thickness	300 µm (0.30 mm)
	Colour	black
	Special properties:	
		<ul style="list-style-type: none">• temperature-resistant to min. 80°C• good resistance to acids and alkalis• no softening agents• resistant to weathering and UV rays• favourable water toxicity rating• suitable for all forming processes after melt on

*Trenchcoat™ Film is a registered trademark of The Dow Chemical Company

Test it yourself:

irrespective of whether it is bent, hammered, scratched or cut....

WProtect will live up to our promise!

Order a sample now:

Wuppermann Stahl GmbH

Telephone +49 (0) 2171 / 5000 - 0

E-Mail info.ws@wuppermann.com

Steel + Zinc + Film

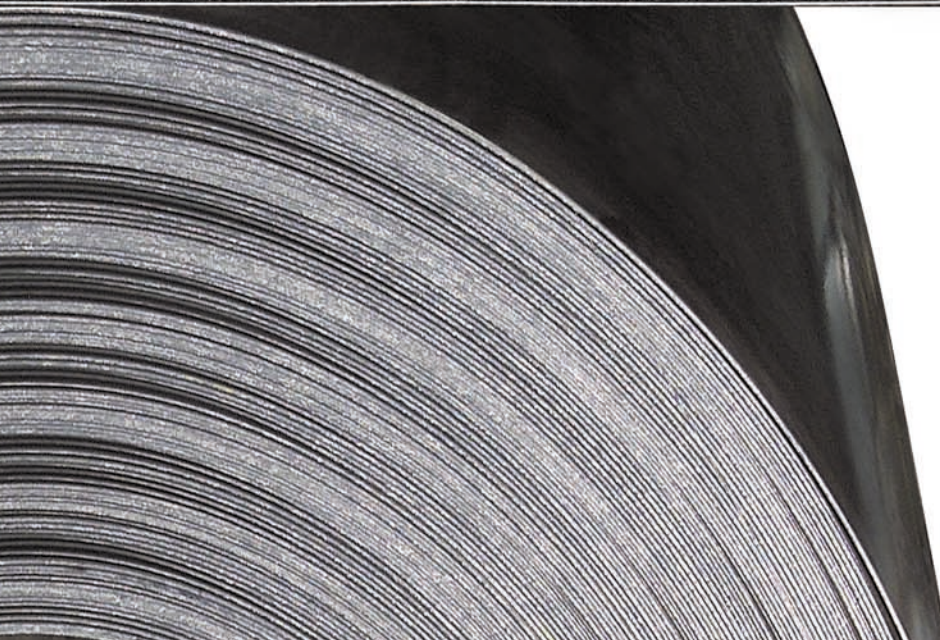
You take your steel strip, protect it with a zinc coating and melt a heavy-gauge film onto both sides of the strip. Although this sounds very simple, it actually involves a highly complex procedure that aims to combine all three materials in a new highly robust unit. The result is WProtect, a product that is capable of resisting almost all corrosion attacks: wetness, mechanical abrasion and numerous chemicals have absolutely no impact on this material. The adhesive strength of zinc and the film guarantees that the protective layers cannot be “infiltrated”. Waste water pipes, for example, which are still undamaged after a service life extending over many decades furnish proof of optimal corrosion resistance.

WProtect™

Trenchcoat protective film* greatly enhances the level of protection against corrosion in aggressive environments with a high concentration of acids, salts and alkalis. This protective film was developed by Dow Chemical to combine the strengths of galvanized steel strip and the excellent chemical resistance and viscosity of polymers and provide long-term resistance in aggressive environmental conditions.

Moisture

Abrasion



*Trenchcoat™ Film is a registered trademark of The Dow Chemical Company

Steel

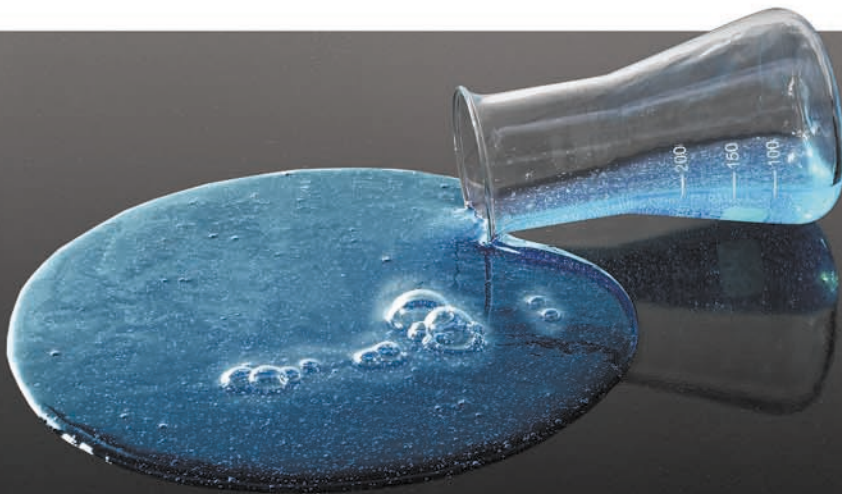
Hot rolled strip is the base material for WProtect. One of the special properties of hot strip is that it has a porous surface. This guarantees excellent zinc adhesion and paves the way for high zinc deposits. In the strip galvanizing area, this property is used to achieve optimal zinc adhesion via the "heat-to-coat process". The thickness and width of the steel strip is precisely adjusted in line with the final product. The entire production process takes place "in-line" - from the cleaning of the steel strip to the melting-on of the film.

Zinc

In the galvanizing phase, the strip, which was previously cleaned and heated to over 450°C, is led through the zinc bath where it obtains the required zinc coating. Particularly thick layers of zinc up to 1200 g/m² provide special protection. One speciality of this process is strip with galvanized edges which would normally be subject to corrosion on account of the cut.

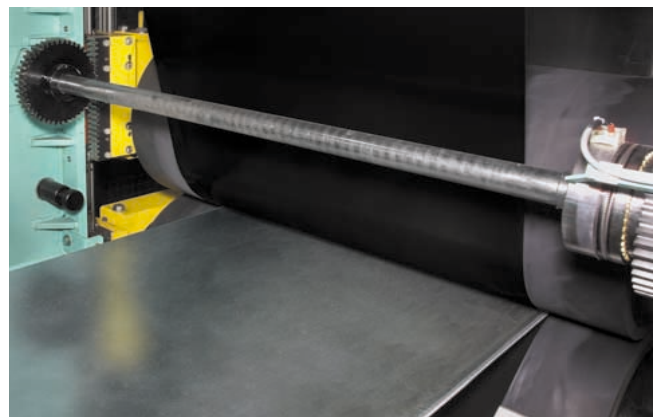


Chemicals



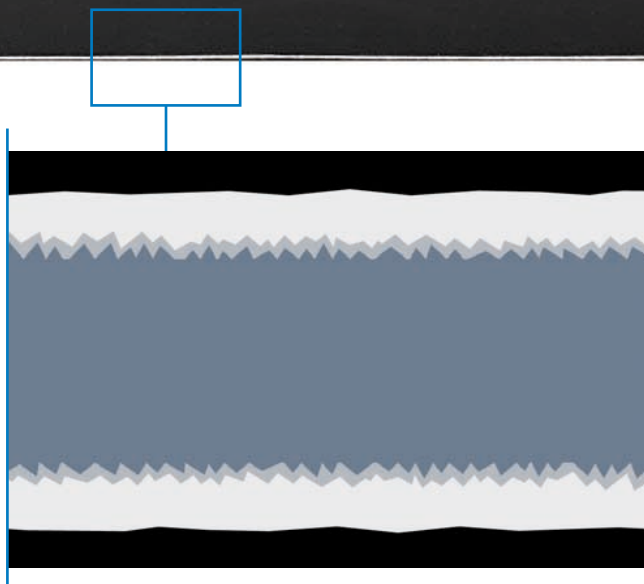
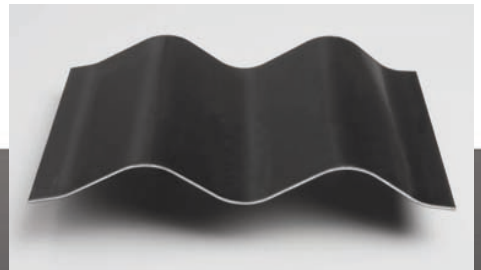
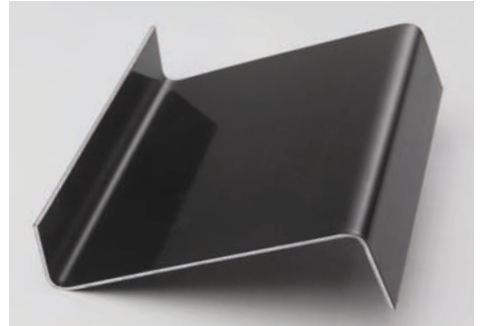
Film Trenchcoat™

The polyolefin film is melted onto both sides directly after the galvanizing process. The temperature of the steel strip combined with the pressure of the roller provides for an excellent chemical and mechanical bond between the film and the galvanized steel strip.



Processing

WProtect is delivered in coil form and can be machined and processed similar to any other steel strip. 180° edging, flanging, folding, roll profiling and other forming operations are possible. The steel, zinc coating and film survive all of these processes unscathed. Appropriate coating materials are available for the protection of “open” cut, bore and joint edges.



Film

Zinc + intermetallic phases

Steel

Layer structure

Zinc + intermetallic phases

Film

Application

WProtect is not only the perfect solution for waste water pipes but is also ideal for a wide range of applications. The excellent protection it provides against aggressive liquids combined with the sealability of edges and seams opens up an extensive field of applications for this material. The imagination knows no bounds.

Possible applications include

Civil and underground engineering

Drainage grates

Shaft deepening

Gully buckets / grating

Industrial structures

Steps

Floor surface of working platforms

Storage area for hazardous substances

Stable equipment

Liquid manure grating

Livestock grids

Container construction



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