

KALMETALL W145

Material data sheet

Product features

Lining and/or construction material to protect against abrasive wear KALMETALL W145 is a compound material made of a high-carbon and high-chrome alloy of iron, which is welded onto a tough basic body. Delivery forms are plates, pre-cut shapes and ready-to-install components. KALMETALL W145 can also be supplied with different base materials.

Quality features

KALMETALL W145 is made with the aim of achieving high resistance to wear and impacts.

Product properties

Feature		Unit	Data
Chemical composition			
Base material 1.7225/42CrMo4		Wt.-% C	0,42
		Wt.-% Cr	1,10
		Wt.-% Mo	0,25
		Wt.-% Fe + others	balance
Hard overlay welding		Wt.-% C	5
		Wt.-% Cr	30
		Wt.-% Nb	7
		Wt.-% Mo	7
		Wt.-% Fe + others	balance
Hardness	Hard material	HV	800
Density		g/cm ³	7,8
Thermal coefficient of expansion		K ⁻¹ (20 - 750 °C)	18,5 x 10 ⁻⁶
Thermal conductivity		W/mK (20 - 750 °C)	15
Max. application temperature		°C	750
Max. thermal shock resistance		°C/h	120

Due to the manufacturing, it is not possible to exclude small variations in the properties of the product. This affects tolerances in the size, outer appearance finish. Included are some typical features of welding metallic products, such as cavities and pores. Fractures in the hard overlay welding are implied and a quality feature.

Approximate figures are given for all technical data. They are based on assessment of tests on specific samples and cannot be considered as a guarantee for which Kalenborn would have to assume legal responsibility.

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Product description

Hard overlay welded steel systems that consist of a tough basic body and a hard overlay welding.

KALMETALL W145 can be applied up to 750 °C, depending on application and geometry

Installation

By overlay welding or use of standard plates to fabricate complete structures.

Advantages

High wear resistance and high impact strength combined with optimal adaptation to customer's requirements.

Application examples

KALMETALL W145 can be supplied as plates, pre-cut shapes and ready-to-install components-e.g.

- screw conveyors
- separator cones
- clinker chutes, clinker coolers
- coke benches(skirting boards)
- impact zones in bunker
- belt transfer points
- mill linings
- crusher linings
- fan blades
- separator blades
- screens
- flights of screw conveyors
- concrete mixer linings
- bunker linings
- chutes
- pipes (dustpipes, ash pipes, etc.)
- cyclone linings

The very high resistance to wear, the high level of hardness and the thicknesses which can be adapted for application in question allow for a durable wear protection.