

KALMETALL W 59L

Material data sheet

Product features

KALMETALL W 59L is a hard overlay welding against abrasive wear in the form of plates in various dimensions. KALMETALL W 59L is a hardfacing material with a high carbon and chromium content. The components made from these plates offer excellent resistance to heavy mineral abrasive wear.

Quality features

KALMETALL W 59L panels are manufactured with the aim of producing abrasion-resistant components with high resistance to mineral wear attack, which can also be used at higher temperatures.

Product properties (pure weld deposit)

Feature		Unit	Data
Chemical composition			
C		Wt.-%	≥ 3.5
Si		Wt.-%	≥ 0.5
Mn		Wt.-%	≥ 0.5
Cr		Wt.-%	32 - 36
Mo		Wt.-%	≥ 0.5
Ni		Wt.-%	≥ 1.5
Fe		Wt.-%	Rest
Hardness	Vickers	HV	> 600
Density		g/cm ³	7.8
Thermal expansion coefficient		K ⁻¹ (20 – 350 °C)	12 x 10 ⁻⁶
Thermal conductivity		W/mK (20 – 350 °C)	46
Max. application temperature		°C	450
Max. thermal shock resistance		K/h	120

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