

Classification

EN ISO 14232-1

NiAl 95 5 - 106/36

Characteristics and field of use

COLDmelt™ Base17 is a powder which provides, due to the exothermal reaction followed by a microdiffusion, a deposit of high bond strength. Easily applicable with very little smoke development.

This powder is the base for all exothermically reacting „cold spray“ powder types. It provides the initial bond on ferro, copper and aluminium base materials followed by the finally desired quality. It also serves as a ONE STEP coating giving a corrosion resistant machinable deposit.

Chemical composition in %

Al	Ni
5.0	Balance

Technical data

Particle shape	spherical
Grain size range	– 106 µm + 36 µm
Apparent density (ISO 3923–2) (g/cm ³) typical	4.6
Hall flow (ISO 4490) (s/50g) typical	15
Hardness (matrix)	approx. 150 – 190 HB
Recommended coating thickness	as a base coat up to 0.2 mm as “One step” application up to approx. 3.0 mm
Melting point (matrix)	approx. 1420 °C
Powder consumption per 0.1 mm coat thickness	approx. 0.85 kg/m ²

Surface Preparation

The surface to be covered must be metallic clean and free of oil, grease and dust. Machining of the surface as per usual practice. Grit blasting with e.g. electro corundum or silicon carbide (quod vide DIN EN 13507 “Pre-treatment of surfaces of metallic parts and components for thermal spraying”).

Recommendation for machining

When used as base coat: not applicable since deposition of the basic layer is followed immediately by the final deposit. When used as ONE STEP coating: with all commonly used tools.