# COLDmelt™ Base20

Metal flame spray powder

## Classification

EN ISO 14232-1

NiMoAl 89 5 6 - 106/45

## Characteristics and field of use

COLDmelt™ Base20 is a self-adhesive flame spray powder that, on one hand, is used as a base coat on ferro, copper and aluminium base materials on which the required covering layers are to be applied. On the other hand, the powder can be sprayed as a so-called „ONE STEP“ layer. In this case, the advantage is that the layer consists of one powder alloy only and spraying of a special base coat is not required. COLDmelt™ Base20 is used for all applications where thermically sprayed layers are required. For repair and preventive protective layers of „new parts“, such as machine guides, wearing rings, bearing seats, fan wheels, badly machined or worn parts.

Layers of COLDmelt™ Base20 can practically be sprayed to any required thickness without interruption and without observing the temperature; there is no danger of chipping. The layers distinguish themselves by over-average tenacity and wear resistance against particle abrasion and particle erosion; they are insensitive to impact. The very high interparticle cohesion strength and the slight tendency to shrinkage of the sprayed layer guarantee crackfree, tight surfacings with good corrosion resistance. Layers of COLDmelt™ Base20 have very good gliding properties where metal-to-metal gliding occurs under high pressure.

## Chemical composition in %

| Ni | Mo | Al |
|---|---|---|
| 89.0 | 5.0 | 6.0 |

## Technical data

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|---|---|
| Particle shape | spherical |
| Grain size range | – 106 µm + 45 µm |
| Apparent density (ISO 3923–2) (g/cm³) typical | 4.4 |
| Hall flow (ISO 4490) (s/50g) typical | 16 |
| Hardness (matrix) | 170 – 240 HV |
| Recommended coating thickness | as a base coat 0.1 – 0.2 mm<br>as “One step” application up to 5 mm |
| Melting point (matrix) | approx. 1425 °C |
| Powder consumption per 0.1 mm coat thickness | approx. 0.85 kg/m² |

## 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

Machinable with all commonly used tools.

All information provided is based upon careful investigation and intensive research.
However, we do not assume any liability for correctness and information is subject to change without notice.