

## **WEARmig Tool NiCrCo**

Solid wire on NiCrCoMoTiAl base for surfacings on hot-working tools subject to extreme thermal load, age-hardenable

| Classifications |                    |  |  |  |  |
|-----------------|--------------------|--|--|--|--|
| EN 14700        | DIN 8555           |  |  |  |  |
| S Ni2           | MSG 23-GZ-250-CKTZ |  |  |  |  |

## Characteristics and field of use

WEARmig Tool NiCrCo is used for surfacings on forging tools which are subject to extreme thermal shock, compression, impact and abrasion, such as forging saddles, exposed areas on dies, hotshearing blades and impact extrusion mandrels.

The special NiCrCoMoTiAl weld deposit is heat-resistant and resistant against oxidation, scale and thermal shocks. Age hardening increases the hardness of the weld overlay. Machining is possible with tungsten carbide tools.

Hardness of the pure weld deposit:

As welded: approx. 250 HB

after age-hardening

4 h at 850°C + 16 h at 760°C : approx. 380 HB After work-hardening : approx. 400 HB

| Typical analysis in wt% |      |     |      |     |     |       |         |  |
|-------------------------|------|-----|------|-----|-----|-------|---------|--|
| С                       | Cr   | Мо  | Co   | Ti  | Al  | Fe    | Ni      |  |
| 0.03                    | 20.0 | 4.5 | 14.0 | 3.0 | 1.5 | < 2.0 | balance |  |

## **Welding instruction**

Clean welding area to a bright metallic finish. Typical preheating temperature for hot work tool steels is between 300-400°C. Minimise dilution by welding with low heat input. Stringer bead technique is recommended. For thick weld deposits on forging saddles, build-up should be done with UTP A 6222 Mo, final layers with WEARmig Tool NiCrCo.

| Wire diameter [mm] | Current type | Shielding gas (EN ISO 14175) |                    |  |
|--------------------|--------------|------------------------------|--------------------|--|
| 1.2                | DC (+)       | R 1                          | Z-ArHeHC-30/2/0.05 |  |