

Classifications

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|----------|---------------|---------------|
| EN 14700 | DIN 8555 | Material-No. |
| S Z Fe3 | MSG 3-GZ-45-T | Special alloy |

Characteristics and field of use

UTP A 73 G 3 is, due to the excellent hot wear resistance and toughness, used for highly stressed hot working tools, which are simultaneously subject to high mechanical, thermal and abrasive loads, such as e.g. forging dies for hammers and presses, forging dies, Al-die cast moulds, plastic moulds, hot-shear blades and for filling engravings by using cheaper base metals.

Machining is possible with tungstene carbide tools.

Hardness of the pure weld deposit:

| | |
|----------------------------|----------------|
| untreated | 42 – 46 HRC |
| soft-annealed 780° C | approx. 230 HB |
| hardened 1030° C/oil | approx. 48 HRC |
| tempered 600° C | approx. 45 HRC |
| 1 layer on non-alloy steel | approx. 35 HRC |

Typical analysis in %

| C | Si | Mn | Cr | Mo | Ti | Fe |
|------|-----|-----|-----|-----|-----|---------|
| 0.25 | 0.5 | 0.7 | 5.0 | 4.0 | 0.6 | balance |

Welding instruction

Machine welding area to metallic bright. Cracks in the base material have to be gouged out completely. Preheating temperature of 400 °C on tools should be maintained. Stress relief/annealing is recommended at 550 °C.

Approvals

TÜV (No. 06741)

| Wire diameter [mm] | Current type | Shielding gas (EN ISO 14175) | | | |
|--------------------|--------------|------------------------------|------|------|-----|
| | | M 12 | M 13 | M 21 | C 1 |
| 0.8 | DC (+) | M 12 | M 13 | M 21 | C 1 |
| 1.0 | DC (+) | M 12 | M 13 | M 21 | C 1 |
| 1.6 | DC (+) | M 12 | M 13 | M 21 | C 1 |

