

UTP A 73 G 3

Standards :

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

Copper coated wire for repair and production of high quality hot working tools

Application field

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.

Properties of the weld metal

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
 I layer on non-alloy steel approx. 35 HRC

Weld metal 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. Pre-heating temperature of 400° C on tools should be maintained. Stress relief, if necessary, at 550° C.

Welding procedure and availability

Ø (mm)	Current type	Shielding gas EN ISO 14175					Availability	
		I 1	M 12	M 13	M 21	C 1	Spools EN ISO 544	Rods EN ISO 544
0,8	DC (+)		x	x	x	x	x	
1,0	DC (+)		x	x	x	x	x	
1,2	DC (-)	x						x
1,6	DC (+)		x	x	x	x	x	
1,6	DC (-)	x						x
2,0	DC (-)	x						x
2,4	DC (-)	x						x

Approval

TÜV (No. 06741)