

# OK 85.58

Type Lime-basic

SMAW

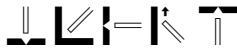
E3-UM-50-ST

## Description

OK 85.58 is a hardfacing electrode for the repair welding of hot-working tools, hot trimming tools, punches and so on. The weld metal hardness can be increased by hardening and tempering, or by tempering alone. The weld metal can be step hardened. To avoid cracking, the preheat and interpass temperature should be at least 300°C and preferably 500°C.

## Welding current

AC, DC+ OCV 70 V



## Classifications

DIN 8555 E3-UM-50-ST

## Typical all weld metal composition, %

C	Si	Mn	Cr	W	Co	Nb
0.32	1.1	1.0	1.8	8.0	2.0	0.8

## Typical mech. properties all weld metal

Weld metal hardness, a w (deposited on mild steel) 42-50 HRC  
Preheat and interpass temperature 350°C:  
1st layer: 47- 52 HRC  
2nd layer: 47- 52 HRC  
3rd layer: 47- 52 HRC  
Machinability Grinding only  
Abrasion resistance Good  
High temp. wear resistance Very good

## Tempering resistance

Temp°C	HRC(1h)
100	51
200	51
300	52
400	53
500	53
550	55
600	53
650	45
700	35

## Annealing and hardening:

Soft annealing °C: 850  
Cooling:  
10C/h down to 650°C, then cooling in air  
Hardening Temperature, °C: 1100-1150  
Quenching: In air or oil

## Deposition data at max current

Diameter, mm	Length, mm	Welding current, A	Arc voltage, V	N. Kg weld metal/kg electrodes	B. No. of electrodes/kg weld metal	H. Kg weld metal/hour arc time	T. Burn-off time, s/ electrode
2.5	350	70-110	22	0.65	72.0	0.9	53
3.2	350	100-150	23	0.63	45.0	1.3	62
4.0	350	130-190	23	0.63	29.5	1.7	75
5.0	350	180-250	25	0.66	18.0	2.2	88