

## Classifications

<b>EN 14700</b>	<b>EN ISO 3581-A</b>	<b>AWS A5.4 / SFA-5.4</b>
E Fe11	E Z 23 12 L R 3 2	E309Mo-16

## Characteristics and typical fields of application

UTP 653 is suitable for joining and surfacing on difficult weldable steels as well as for claddings on non-alloy structural steel and low-alloyed steels. Due to the good corrosion resistance and mechanical properties UTP 653 particularly used in repair and maintenance of machine and components, such as gears, cams, shafts, hot trim plates and dies. UTP 653 has fine metal droplet transfer, finely rippled bead surface and easily removable slag. The weld deposit is corrosion resistant, crack-resistant and can be work-hardened.

Hardness of the pure weld metal untreated: ca. 220 HB work-hardened : ca. 350 HB


## Typical analysis

	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.1	0.8	1.0	23.0	13.0	2.8

## Mechanical properties of all-weld metal - typical values (min. values)

Yield strength $R_{p0.2}$	Tensile strength $R_m$	Elongation A ( $L_0=5d_0$ )
MPa	MPa	%
> 500	> 650	> 25

## Operating data

	Polarity	DC + / AC	Dimension mm	Current A
	Redrying	120 - 200°C / 2 h	2.5 × 300	50 - 70
			3.2 × 350	70 - 100
			4.0 × 400	100 - 130

Clean the welding zone thoroughly. Prepare X-, V- or U-groove on thick-walled workpieces with an angle of 60 - 80°. Preheat high-carbon-containing steels and solid workpieces to approx. 250° C. Hold stick electrode vertically and weld with a short arc, use stringer beads or slight weaving.

## Approvals

DB (20.138.04), CE