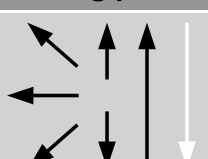


rutile-coated austenitic-ferritic special stick electrode  
with high mechanical values and excellent welding properties

Classifications						
EN ISO 3581-A	EN 14700		Material-No.			
E Z 23 12 L R 32	E Fe11		~ 1.4459			
Characteristics and field of use						
<p>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.</p> <p>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.</p>						
Hardness of the pure weld metal						
untreated:		ca. 220 HB				
work-hardened :		ca. 350 HB				
Typical analysis in %						
C	Si	Mn	Cr	Mo	Ni	Fe
0.1	0.8	1.0	23.0	2.8	13.0	balance
Mechanical properties of the weld metal						
Yield strength $R_{p0,2}$		Tensile strength $R_m$		Elongation A		
MPa		MPa		%		
> 500		> 650		> 25		
Welding instruction						
<p>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. Re-dry damp stick electrodes for 2 h / 120 – 200° C.</p>						
Welding positions						
 <p>Current type DC (+) / AC</p>						
Approvals						
DB (Nr. 20.138.04)						
Recommended welding parameters						
Electrodes $\varnothing \times L$ [mm]	2.5 x 300		3.2 x 350		4.0 x 400	
Amperage [A]	50 – 70		70 – 100		100 – 130	