

Standards : DIN 8573 : E NiFe-1 BG 12
 ISO 1071 : E NiFe
 AWS A5.15 : E NiFe-CI



UTP 86 FN

Graphite-basic coated ferro-nickel electrode with high mechanical values for repair and construction

Application field

UTP 86 FN is suitable for joining and surfacing of lamellar grey cast iron GG 10 - GG 40, nodular cast iron (spheroidal cast iron) GGG 40 - GGG 70 and malleable cast iron grades GTS 35 - GTS 65 as well as for joining these materials with each other or with steel and cast steel. Universally applicable for repair, construction and production welding.

Welding properties

UTP 86 FN has excellent buttering characteristics on cast iron. The electrode has a stable arc and produces a flat seam structure without undercutting. Particularly for fillet welds an optimal seam structure is achieved (e.g. welding GGG-flanges or sockets to GGG-tubes). Due to the bimetallic core wire, the current carrying capacity and the deposition rate are excellent. The bead appearance is smooth. The weld deposit is highly crack resistant and easily machinable with cutting tools.

Mechanical properties of the weld metal

Yield strength R_e MPa	Tensile strength R_m MPa	Elongation A_5 %	Hardness HB
> 340	> 500	> 18	approx. 220

Weld metal analysis in %

C	Fe	Ni
1,2	45,0	balance

Welding instruction

UTP 86 FN is preferably welded on DC (negative polarity) or on AC. When welding on DC (neg. polarity), a deep penetration is reached (advantage for fillet welds). Positional weldings are easier with AC. Prior to welding, remove the casting skin. Hold electrode vertically and with short arc. When welding crack-susceptible cast iron grades, the deposit may be peened for the purpose of stress relief.

Current type : DC (-) / AC

Welding positions :



Current adjustment :

Electrodes	Ø mm x L	2,5 x 350	3,2 x 350	4,0 x 350
Amperage	A	65 - 80	90 - 110	100 - 130

Approval

DB AG, No. 62.138.05