

UTP AF 155

Unalloyed and low-alloyed steels

Classifications

Gas-shielded flux-cored wire

EN ISO 17632-A

AWS A5.18

T 46 4 M M 1 H5

E70C-6MH4

Characteristics and field of use

UTP AF 155 is a high-efficiency flux-cored wire with metal powder filling, for all position welding with mixed gas M21 acc. to EN ISO 14175. It features outstanding mechanical properties in temperature range down to -40 °C with very low fume level and oxide build up. The stable arc, the smooth droplet transfer, the secure penetration, its high deposition rate in the spray arc range and the high deposition efficiency of 98% approx. are only some of the positive properties of this wire. It is characterized by almost spatter-free welding with good wall wetting, flat and concave weld shape, radiographical soundness and porosity free weld metal. It is suited for manual and mechanized welding for single and multilayers and root pass welding is proven in all positions.

Base materials

S185, S235J2G3, S275JR, S355J2G3, E295, P235GH, P265GH, P295GH, P355GH (HI, HII, 17 Mn 4, 19 Mn 6), P275N, P355N, P355NL2, P460N, S275N, S275NL, S355N, S355NL, S460N, L210, L240, L290, L360, L290NB, L360MB, L415MB, X42 – X65 / StE 445.7 TM (API-5LX), GS-38 – GS-52, shipbuilding steels grade A – E, A32 – F32, A36 – F36, A40 – F40

Typical analyses in %

C	Si	Mn	P	S
0.06	0.6	1.4	≤ 0.02	≤ 0.02

Mechanical properties of the weld metal

Heat treatment	Shielding gas	0.2%-Yield strength	Tensile strength	Elongation ($L_0=5d_0$)	Impact values CVN	
		MPa	MPa	%	J	-40 °C
AW	M 21	460	560	22	130	50
580 °C / 2h	M 21	460	560	22	120	50

Welding position



Current type DC (+)
Shielding gas (EN ISO 14175) M 21
Consumption: 15 – 18 l / min

Approvals

TÜV (No. 11193), DB (No. 42.132.48), BV, DNV GL, LR

Form of delivery and recommended welding parameters

Diameter [mm]	Amperage [A]	Voltage [V]
1.2	120 – 350	18 – 33

Other diameters upon request