

ER 630 Tig (17-4 PH)

CATEGORY GMAW-GTAW Solid wires

TYPE Precipitation hardening stainless steel filler metal used for welding materials of similar chemical composition such as 17-4 and 17-7.

APPLICATIONS To be used in the as welded condition or in the heat treated condition to obtain higher strength. Mechanical properties of this alloy are greatly influenced by the heat treatment.

PROPERTIES * Mechanical properties listed below reflect utilization of a post-weld heat treatment between 1875°F and 1925°F for one hour, followed by precipitation hardening between 1135°F

CLASSIFICATION

AWS	A 5.9: ER 630 UNS S17480
EN ISO	14343-A:
DIN: W.Nr.	1.4542
DIN	8556:

SUITABLE FOR Suitable for precipitation hardening stainless steel used for welding materials of similar chemical composition such as 17-4 (PH) and 17-7 as applied for valves, fasteners, gears, propeller shafts, and roller chain pins. W.Nr: 1.4542

WELDING POSITIONS:



WELD DEPOSIT ANALYSIS

C	Mn	Si	Cr	Ni	Mo	Nb	Cu
<0.03	0.55	0.45	16.7	4.7	0.2	0.24	3.5

MECHANICAL PROPERTIES

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				+20°C	-40°C	-196°C	
* Heat treated	920	1020	11				

WELDING PARAMETERS / PACKING

D (mm)	Welding Parameters			Packing (kg)	
	Length (mm)	Current (A) DC-		single	master
1.6	1000	50-110		5	25
2.4	1000	110-180		5	25
3.2	1000	160-260		5	25

REDRYING TEMPERATURE not required

GAS ACC. EN ISO 14175: I1