

VAC 65 TIG VAC 65

Classification:

EN 440	G 46 4 C/M G4Si1
EN1668	W 46 4 W4Si1
DIN 8559	SG 3
	W SG 3
W.Nr	1.5130
ASME/AWS A - 5.18	ER 70 S-6
EN ISO 636-A	W 46 4 W4Si1
EN ISO 636-B	W 55A 4 W6
EN ISO 14341-A*	G46 4M/C G4Si1
EN ISO 14341-B*	G 55A 4 M/C G6

Description and application:

Solid copper coated, CTOD tested wire for welding in gas shielding atmospheres. Slightly higher silicon and manganese alloyed than VAC 60. The higher contains of silicon and manganese increase the yield stress and tensile strength of weld metal (compared with VAC 60). The high silicon content promotes a low sensitivity to surface impurities and contributes to smooth weld. Suitable for welding unalloyed and low alloyed construction steels with tensile straight below 640 N/mm² like boiler plate, fine-grained steels, pipe steels, shipbuilding steels and cast steels.

Base materials:

	SIST EN	DIN	W.Nr.
Unalloyed steel	S185 - E335+CR	St 33 - St 60.2	1.0035, 1.0060
Fine-grained steel	S235N - S355N P255NH - P355NH	St E 255 - St E 355 W St E 255 - W St E 355	1.0461, 1.0545 1.0462, 1.0565
Boiler and vessel steel	P235GH, P265GH P295GH, P355GH	H I, H II, 17Mn4, 19Mn5	1.0345, 1.0425 1.0481, 1.0473
Pipe steel	P235G1TH - P355T2 L210 - L360GA L240NB - L415NB	St 35 - St 52.4 St E 210.7 StE290.7 - StE415.7	1.0308, 1.0581 1.0307, 1.0499 1.0484, 1.8972
Shipbuilding steel	S235JRS2-S235J4S S310G1S - S355G2S	GL-A, do GL-E GL-A32 do GL-D36	1.0441, 1.0476 1.0513, 1.0585
Cast steel	GE200 - GE260	GS-38 do GS-52	1.0420, 1.0552

Chemical composition of welding wire (wt. %) :

C	Si	Mn	P	S
0,08	1,00	1,70	<0,025	<0,025

Mechanical properties of all weld metal:

Yield strength	R _{el} / Rp _{0.2} :	> 460	MPa(N/mm ²)
Tensile strength	Rm:	530 - 680	MPa(N/mm ²)
Elongation	A ₅ :	> 20	%
Impact energy	KV :	> 47	J (-40°C)

Suitable shielding gases: **MAG-process** 100% CO₂, Ar + 18% CO₂, CO₂ + Ar + O₂
(C1, M21, M22 - M33 acc. to EN ISO 14175)
TIG-process Ar (I1) acc. to EN ISO 14175

Wire sizes available: 0,8; 0,9; 1,0; 1,2; 1,6 (φ mm)

Rod sizes available: 1,6; 2,0; 2,5; 3,0; 4,0 (φ mm) length: 1000 mm

Form of delivery:

Welding wires are spooled in accordance with AWS A5. 18 and EN ISO 544. Iron or plastic spools, normal or precision layer wound. Wire can be packed in drums: 250 kg, 350 kg, 500 kg
Welding rods are packed in paper carton, weight 25 kg.

Approvals:

TÜV, DB, LR, GL (for VAC 65)