

Classifications

EN ISO 24598-A	AWS A5.23 / SFA-5.23
S S ZCrMoWVNb 9 0,5 1,5	EG (EB91(mod.))

Characteristics and typical fields of application

Thermanit MTS 616 is a solid wire for submerged arc welding; High temperature resistant. Suited for joining and surfacing applications with matching high temperature resistant parent metal P92 according to ASTM A 335.

Recommended SAW flux:

Record 543

Base materials

1.4901 – X10CrWMoVNb9-2; NF 616;
ASTM A 355 Gr. P92

Typical analysis

	C	Si	Mn	Cr	Ni	Mo	W	V	Nb	N
wt.-%	0.11	0.15	0.5	8.8	0.45	0.45	1.65	0.20	0.06	0.04

Structure: Martensite, suitable for quenching and tempering

Operating data

Dimension mm

1.2
1.6
2.0
2.5
3.0
3.2
4.0

Tempering at 760°C min. 2 h, max 10 h / cooling down to 300°C in oven; air heating / cooling rate below 550°C max. 150°C/h, above 550°C max. 80°C/h. When tempering below 2 h the requirements need to be verified by a WPQR. Preheat and interpass temperature 200 - 300°C. Cool down to 100°C before post-weld heat treatment.

Polarity: DC-

Shielding gas: 100% Ar. Gas flow: 4 – 8 l/min.

Approvals

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