

AWS A5.1M

E4916

Stick electrode, unalloyed, basic

Classifications EN ISO 2560-A EN ISO 2560-B AWS A5.1 E 46 4 B 3 2 H5 E 4916 A E7016

Characteristics and typical fields of application

Good welding characteristics; clean weld metal with good toughness characteristics.

Prefered for rail joints and crossing frogs in railway and tramway trackage; suitable for rail grades with a tensile strength up to 1080 MPa; for mechanical engineering and tank construction.

Base materials

E295, E335, E360, C 45, C 60, GS-45, GS-52, GS-60, P295GH, P355GH

Fine grained structural steels up to S355N;

Rail steels with up to 1080 MPa tensile strength

Typical analysis of all-weld metal (wt.-%)

	С	Si	Mn
wt-%	0.07	0.40	1.35

Mechanical properties of all-weld metal

Heat- treatment	Yield strength R _{p0.2}	Tensile strength R_m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
aw	470	540	22	120
sr	450	520	25	130

Operating data

	Polarity:	Redrying:	ø (mm)	L mm	Amps A
	DC (+) / AC	300 – 350 °C / 2 h	3.2	450	100 - 140
← :		(572 – 662 °F)	4.0	450	140 – 190
			5.0	450	170 – 240
			6.0	450	220 - 300

Approvals

TÜV (01807), DB (81.132.01), CE