

Classifications

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 20 25 5 Cu N L R 3 2	E385-16

Characteristics and typical fields of application

Stainless; resistant to intercrystalline corrosion – wet corrosion up to 350 °C (662 °F). Good corrosion resistance similar to matching steels / cast steel grades, above all in reducing environments. For joining and surfacing work with matching austenitic CrNiMoCu steels / cast steel grades. For joining this steels with unalloyed / low alloy steels / cast steel grades.

Base materials

TÜV certified parent metals

1.4465 – X1CrNiMoN25-25-2;	1.4505 – X4NiCrMoCuNb20-18-2
1.4539 – X2NiCrMoCuN25-20-5;	UNS N08904, S31726

Typical analysis of all-weld metal

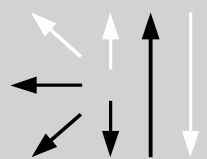
	C	Si	Mn	Cr	Mo	Ni	Cu
wt-%	< 0.03	< 0.70	1.30	20.00	4.50	25.00	1.50

Structure: Austenite

Mechanical properties of all-weld metal – typical values (min. values)

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	350 (≥ 320)	550 (≥ 510)	35 (≥ 25)	55

Operating data

	Polarity:	Electrode identification:	∅ mm	L mm	Amps A
	DC (+) / AC	Thermanit 20/25 Cu	2.5	300	50 – 80
		385-15	3.2	350	80 – 110
			4.0	350	100 – 135
			5.0	450	140 – 180

Welding instruction

Materials	Preheating	Postweld heat treatment
Matching/similar steels/cast steel grades	None	None. If necessary solution annealing at 1120 °C (2048 °F)
Combinations with unalloyed/low alloy steels/cast steel grades	According to unalloyed/low alloy parent metal mostly not necessary	None

Approvals

TÜV (04112), CE