

# Thermanit 30/40 E

Stick electrode, high-alloyed, stainless, basic

Classifications	
EN ISO 14172	Mat. No.
E Ni 8025 (NiCr29Fe30Mo)	2.4653

#### Characteristics and typical fields of application

Stainless; resistant to intercrystalline corrosion – wet corrosion up to 450 °C (842 °F). Good corrosion resistance, especially in reducing environments. In terms of hot cracking resistance (and corrosion resistance) Thermanit 30/40 E is superior to the fully austenitic X 6 NiCrCuNb 20 18 and X 5 CrNiMoNb 25 25 welding filler metals, which are very sensitive to hot cracking. For joining and surfacing work with matching and similar, non stabilized and stabilized fully austenitic steels / cast steel grades containing Mo (and Cu). For joining aforementioned steels to unalloyed / low alloy steels.

#### **Base materials**

1.4465 - X1CrNiMoN25-25-2; 1.4563 - X1NiCrMoCu31-27-4

1.4577 – X5CrNiMoTi25-25; 2.4858 – NiCr21Mo

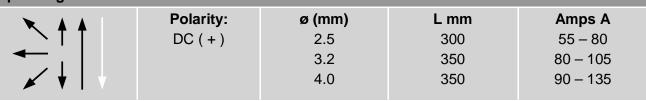
Typical analysis of all-weld metal (wt%)							
	С	Si	Mn	Cr	Мо	Ni	Cu
wt-%	< 0.03	< 0.5	2.7	28.0	3.8	36.0	1.8

Structure: Austenite

Med	chanical	proper	ties	of	all-we	ld meta	al
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Heat- treatment	Yield strength R <sub>p0.2</sub>	Yield strength R <sub>p1.0</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact work ISO-V KV J
	MPa	MPa	MPa	%	+20 °C
aw	350	370	550	30	75

#### **Operating data**



### **Welding instruction**

Materials	Preheating	Postweld heat treatment
Matching metals	None (weld as cold as possible) cooling in air	Mostly none; if necessary solution annealing at 1120 °C (2048 °F)
Joining of matching austenitic steels to unalloyed / low alloy steels / cast steel grades	According to parent metal	None

## **Approvals**

TÜV (00119), CE