

# Thermanit C

Stick electrode, high-alloyed, basic

Classifications		
EN ISO 3581-A	AWS A5.4	Mat. No.
E 25 20 B 2 2	E310-15 (mod.)	1.4842

# Characteristics and typical fields of application

Resistant to scaling up to 1150 °C (2102 °F). For surfacing and joining applications on matching/similar heat resistant steels / cast steel grades. For tough fill layers beneath cap passes made with Thermanit L when welding thicker cross sections of Cr steels/cast steel grades to permit use of such steels in sulphureous atmospheres.

# Atmosphere max. application temperature in °C (°F)

sulphur-free max. 2 g S/Nm³
Air and oxidizing combustion gases 1150 (2102) 1100 (2012)
Reducing combustion gases 1080 (1976) 1040 (1904)

### **Base materials**

TÜV certified parent metal

1.4841 - X15CrNiSi25-20; AISI 305, 310, 314; ASTM A297HF, A297HJ

Typical analysis of all-weld metal (wt%)						
	С	Si	Mn	Cr	Ni	
wt-%	0.13	1.0	2.5	25.0	20.0	

Structure: Austenite

#### Mechanical properties of all-weld metal Yield strength Yield strength Elongation Heat-Tensile strength Impact work treatment $R_{m}$ A $(L_0=5d_0)$ ISO-V KV J $R_{p0.2}$ $R_{p1.0}$ **MPa MPa** MPa % +20 °C 390 550 aw 350 25 80

# **Operating data**

~ A A I	Polarity:	ø (mm)	L mm	Amps A
<b>^</b> ↑ ↑	DC ( + )	2.5	300	55 – 75
<b>←</b> [		3.2	350	70 – 110
		4.0	350	90 – 140
7 1 1		5.0	450	140 – 190

### **Welding instruction**

Materials	Preheating	Postweld heat treatment
Heat resistant Cr steels / cast steel grades	According to parent metal	According to parent metal
Heat resistant matching / similar steels / cast steel grades	None	None

### **Approvals**

TÜV (01232), CE