

## 4009 Ti

**CATEGORY** SMAW Stick Electrodes

**TYPE** Basic coated electrode with approximately 13% Chromium

**APPLICATIONS** This alloy can be used for welding martensitic-ferritic steels , steel castings and for hardfacing exhaust valves.

**CLASSIFICATION**

AWS	A 5.4: E 410-25
EN ISO	3581-A: E 13 B 42
DIN: W.Nr.	1.4009
DIN	1913: E 4009

**SUITABLE FOR** X6Cr13 -1.4000, X6CrAl13 - 1.4002, X10Cr13 - 1.4006, X15Cr13 - 1.4024, Steel castings: G-X10Cr13 - 1.4006, martensitic steel, cast steel, cladding exhaust valves

**APPROVALS** CE approved

**WELDING POSITIONS:**



**WELD DEPOSIT WEIGHT %**

C	Mn	Cr	Fe
0.1	0.7	11.5-14.5	Rest

**MECHANICAL PROPERTIES**

Heat Treatment	R <sub>p0,2</sub> (N/mm <sup>2</sup> )	R <sub>m</sub> (N/mm <sup>2</sup> )	A <sub>5</sub> (%)	Impact Energy (J) ISO-V			Hardness HB 30
				-20°C	-40°C	-60°C	
Tempered	>450	650	>15				180

Tempering: 840-870°C / 2hr, oven cooling down to 595°C (55C/hr), then cooled by air. AW: as welded

**WELDING PARAMETERS / PACKING**

D (mm)	Welding Parameters			Packing	
	Length (mm)	Current (A) DC+		kg / can	kg / 6pack
2.5	300	60-90		2.5	15
3.2	350	80-110		2.6	15.6
4.0	350	100-150		3	18

**REDRYING TEMPERATURE** 320°C/2hr

**HEAT TREATMENT** Preheating (200°C), interpass temperature and tempering temperature depending on the relevant base metal and material thickness.