

# PRODUCT DATA SHEET

## PROCUS 681



### SUMMARY

- > Basic/Twin Coated (TC) Manual Arc Electrode
- > Versatile/All Positional (Especially Vertical Up) Capabilities
- > Reliable, Low Temperature Impact Toughness
- > Easy to Strike and Re-Strike
- > Smooth Performance on Low OCV AC Welding Machines

### IDENTIFICATION

Coating - Light Grey

### CLASSIFICATION

- > AS/NZS 4855-B - E49 16-A U H10
- > AWS A5.1: E7016 H8

### DESCRIPTION AND APPLICATION

Smooth running, basic low hydrogen electrode, developed for all positional (except vertical down) welding, using AC or DC power sources. It has exceptional arc stability and weldability and

delivers high quality weld deposits with reliable notch toughness to -40°C. Procus 681 is manufactured using a unique twin coating extrusion process, which means all the arc stabilising elements are concentrated in the inner coating. This delivers significantly improved arc stability and control for all applications.

### OPERATIONAL DATA

ELECTRODE SIZE (MM)	ELECTRODE LENGTH (MM)	WELDING CURRENT RANGE *(A)
2.5	300	60 - 90
3.2	380	90 - 135
4.0	380	140 - 190
5.0	450	190 - 240

\*Please note, 2.5 and 3.2 Procus 681 are recommended for DC+ or AC (minimum 45 OCV) operation, whereas 4.0, 5.0 and 6.0mm sizes require a minimum of 55 OCV for stable AC operation.

### SHIPPING APPROVAL

LRS 4Ym H10    ABS 3 H10    DNV 3Y H10

### TYPICAL ALL WELD METAL CHEMICAL ANALYSIS

C	Mn	Si	P	S	Fe
0.05	1.16	0.42	0.013	0.006	Bal

### TYPICAL ALL WELD METAL MECHANICAL ANALYSIS

Yield Stress	460 MPa
Tensile Strength	560 MPa
Elongation	28%
CVN Impact Values	130J @ -20°C, 110J @ -40°C

### PACKAGING DATA

ELECTRODE SIZE (MM)	PACKAGING (KG)		APPROX. NO. OF RODS PER KG	PART NO.
	PACKET	CARTON		
2.5	2.5	12.5	60	68125
3.2	5.0	15	29	68132
4.0	5.0	15	18	68140
5.0	5.0	5 15	10	68148

### MATERIALS TO BE WELDED

	CODE	TYPE
Structural Steel	AS 1163	C250, C350, C450
	AS 1397	G250, G300, G350, G450
	AS 1450	C/H200, C/H250, C/H350, C/H450
	AS/NZS 3679.1	250, 300, 350, 400
Pressure Equipment Steel	AS/NZS 3678.1	200, 250, 300, 350, 400, 450, A1006, XK1016, WR350
	AS/NZS3679.2	
Pressure Equipment Steel	AS 1548	7-430, 7-460, 5-590, 7-490
Fine Grain Steel	AS/NZS 1594	HAI, HA3, HA4N, HA200, HA250, HA300, HA1006, HA1010, HA1016, HA350, HA400
Cast Steel	AS/NZS 1594	HAI, HA3, HA4N, HA200, HA250, HA300, HA1006, HA1010, HA1016, HA350, HA400
Pipe Material	API 5LX	X42, X46, X52, X60

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Issue CA - December 2018