

CLASSIFICATION

AWS A5.1	E7016	A-Nr	1
ISO 2560-A	E 42 2 B 1 2 H5	F-Nr	4
		9606 FM	1

GENERAL DESCRIPTION

Designed for vertical up root pass welding of pipes up to and including X80 and similar steel
 Suitable for fill and cap pass welding for up to and including X65
 Excellent low temperature impact properties down to -30°C
 Good directed arc even at very low current makes welding easier, especially in critical pipe welding applications
 Superior crack resistance, excellent stability in all welding positions
 Open gap root pass welding with 2.5 and 3.2 mm electrodes using DC - / + polarity

WELDING POSITIONS (ISO/ASME)



CURRENT TYPE

AC/DC +/-

CHEMICAL COMPOSITION (W%), TYPICAL, ALL WELD METAL

C	Mn	Si	P	S	HDM
0.06	1.2	0.4	0.015	0.010	4 ml/100 g

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J)	
				-20°C	-29°/-30°C
Required: AWS A5.1 ISO 2560-A Typical values	min. 400 min. 420 510	min. 490 500-640 560	min. 22 min. 20 28	27 100	min. 47 80

PACKAGING AND AVAILABLE SIZES

Carton + PE foil	Diameter (mm)	2.5	3.2	4.0
	Length (mm)	350	350	350
Pieces / unit	Net weight/unit (kg)	148	157	87
		2.7	4.8	4.4

Identification Imprint: 7016-1 / CONARC 52

Tip Color: black

Conarc® 52: rev. C-EN06-0102/16

All information in this data sheet is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.eu for any updated information.
 Fumes: Material Safety Data Sheets (MSDS) are available on our website.

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EXAMPLES OF MATERIALS TO BE WELDED

Steel grades/Code	Type
General structural steels	
EN 10025	S185, S235, S275, S355
Ship plates	
ASTM A 131	Grade A, B, D, AH32 to EH40
Cast steels	
EN 10213-2	GP240R
Pipe material	
EN 10208-1	L210, L240, L290, L360
EN 10208-2	L240, L290, L360, L415, L445
API 5LX	X42, X46, X52, X60
EN 10216-1	P235T1, P235T2, P275T1
EN 10217-1	P275T2, P355N
Boiler & pressure vessel steels	
EN 10028-2	P235GH, P265GH, P295GH, P355GH
Fine grained steels	
EN 10025 part 3	S275, S355, S420
EN 10025 part 4	S275, S355, S420

CALCULATION DATA

Sizes		Current type	Arc time - per electrode at max. current - [S]*	Energy E[kJ]	Dep. rate H[kg/h]	Weight/ 1000 pcs [kg]	Electrodes/ kg weldmetal B	kg electrodes/ kg weldmetal 1/N
Diam. x length [mm]	Current range [A]							
2.5x350	50-80	DC+	59	100.6	0.71	18.5	86	1.59
3.2x350	60-120	DC+	68	179.9	1.02	30.3	52	1.57
4.0x350	120-170	DC+	77	258.7	1.50	48.7	31	1.51

*Stub end 35mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter [mm]	Welding positions					
	PA/1G	PB/2F	PC/2G	PF/3Gup	PE/4G	PH/5Gup
2.5	85A	85A	85A	75A	85A	75A
3.2	120A	115A	115A	115A	115A	115A
4.0	170A	170A	170A	140A	140A	140A

REMARKS / APPLICATION ADVICE

Redry electrodes 2-4h 350 ±25°C after removal from cardboard boxes