Pantafix®

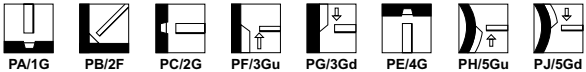
CLASSIFICATION

AWS A5.1	E6013	**A-Nr**	1
ISO 2560-A	E 38 0 RC 1 1	**F-Nr**	2
		9606 FM	1

GENERAL DESCRIPTION

Rutile general purpose, all position electrode, including vertical down
Soft arc therefore suitable for relative thin plates and bridging wide gaps
Excellent in pipe welding and construction
Good start and restart behaviour
Also weldable with low Open Circuit Voltage transformers (min. OCV 42V)
Good X-ray soundness

WELDING POSITIONS (ISO/ASME)



PA/1G **PB/2F** **PC/2G** **PF/3Gu** **PG/3Gd** **PE/4G** **PH/5Gu** **PJ/5Gd**

CURRENT TYPE

AC / DC -

APPROVALS

TÜV

+

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

C	Mn	Si
0.09	0.5	0.4

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) 0°C
Required: AWS A5.1		min. 330	min. 430	min. 17	not required
ISO 2560-A		min. 380	470-600	min. 20	min. 47
Typical values	AW	500	540	24	60

PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	2.0	2.5	3.2	4.0
	Length (mm)	300	350	350	350
Carton + PE foil	**Pieces / unit**	235	145	155	120
	Net weight/unit (kg)	2.4	2.8	4.8	5.4

Identification Imprint: 6013 / PANTAFIX Tip Color: none

Pantafix®: rev. C-EN25-01/02/16

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EXAMPLES OF MATERIALS TO BE WELDED

Steel grades/Code	Type
General structural steels	
EN 10025	S185, S235, S275
Ship plates	
ASTM A 131	Grade A, B, D
Cast steels	
EN 10213-2	GP240R
Pipe material	
EN 10208-1	L210, L240, L290
EN 10208-2	L240, L290
API 5LX	X42, X46
EN 10216-1/EN10217-1	P235, P275
Boiler & pressure vessel steels	
EN 10028-2	P235, P265, P295
Fine grained steels	
EN 10025 part 3	S275
EN 10025 part 4	S275

CALCULATION DATA

Sizes Diam. x length (mm)	Current range (A)	Current type	Arc time - per electrode at max. current - (S)*	Energy - per electrode at max. current - E(kJ)	Dep. rate - per electrode at max. current - H(kg/h)	Weight/ 1000 pcs (kg)	Electrodes/ kg weldmetal B	kg electrodes/ kg weldmetal 1/N
2.0x300	40-75	AC	41	58	0.5	10.4	178	1.98
2.5x350	50-90	AC	60	130	0.7	17.8	88	1.57
3.2x350	70-130	AC	66	206	1.0	29.5	53	1.58
4.0x350	130-175	AC	72	333	1.3	43.6	37	1.61

*Stub end 35mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter (mm)	Welding positions PA/1G	PB/2F	PC/2G	PF/3G up	PG/3G down	PE/4G
2.5	80A	75A	75A	75A	75A	75A
3.2	120A	115A	125A	115A	125A	115A
4.0	175A	165A	160A	160A	170A	160A

REMARKS / APPLICATION ADVICE

Vertical down only applicable for “clean” structural steel