I.A.Barnes & Co Ltd
Unit 21, Gunnels Wood Park
Gunnels Wood Road
Stevenage, Hertfordshire
SG1 2BH, UK
Tel: +44 (0)1438 354972
Fax: +44 (0)1438 741530
www.iabco.co.uk

IABCO 1928

Sub-arc welding flux

Product name	IABCO 1928		
Classification EN ISO	14174:	S A FB 1 55 AC H5	
Classification AWS	A5.23:	S2Si S3Si S3 1Ni¼Mo S3NiMo1	F7A4-EM12K F7A8/P8-EH12K F8A8/P8-ENi5 F9A8/P8-EF3
Boniszewski index	~3.0		
Grain size, EN ISO 14174	2-20		
Applications	IABCO 1928 is a fluoride basic agglomerated flux for the single and multi-pass welding of structural, pressure vessel, offshore and high strength steels in combination with suitable IABCO wires. The low weld metal oxygen content enables high levels of weld metal toughness to be obtained at low temperatures in both the as-welded and post weld heat treated (PWHT) conditions. The IABCO 1928 flux provides consistently good CTOD values with the relevant CMn and nickel bearing wires. IABCO 1928 is suitable for use in a wide range of applications when used in combination with IABCO mild steel, CMn and low alloys wires. IABCO 1928 flux is suitable for use with both single and multi-wire welding systems; the flux exhibits a low weld metal hydrogen content combined with a very low rate of moisture pick-up.		
Base materials	The range of base materials that can be welded will depend on the wire that is being used in combination with the flux. More information can be found on the relevant wire data sheet.		
Typical weld procedure (1)	The weld procedure will be specific to the wire being used and base material being welded. Preheat: Will be dependent on base material, joint thickness and application code. Interpass temperature: Will be dependent on base material, joint thickness and application code. PWHT: Will be dependent on base material, joint thickness and application code.		

I.A.Barnes & Co Ltd
Unit 21, Gunnels Wood Park
Gunnels Wood Road
Stevenage, Hertfordshire
SG1 2BH, UK
Tel: +44 (0)1438 354972
Fax: +44 (0)1438 741530
www.iabco.co.uk

Typical analysis of weld deposit, wt %		C	Si	Mn	Ni	Cr	Mo	
	S2Si	0.09	0.35	1.0	-	-	-	
	S3Si	0.08	0.35	1.5	-	-	-	
	S3 1Ni¼Mo	0.06	0.40	1.3	0.7	0.05	0.15	
	S3NiMo1	0.08	0.40	1.6	0.8	0.05	0.45	

Mechanical properties of weld deposit (2)		PWHT °C/hr	$Rp_{0.2\%}$ MPa	Rm MPa	A4 %	CVN, J	
						-40°C	-60°C
	S2Si	AW	435	520	30	75	-
	S3Si	AW	460	560	28	-	40
		580/2	420	540	28	-	40
	S3 1Ni¼Mo	AW	500	595	27	94	-
		620/1	475	585	27	120	118
	S3NiMo1	AW	650	760	27	107	63
		620/1	625	715	27	132	66
		620/4	610	705	26	123	73
	S2 2.5Ni	AW	490	560	26	130	90
		580/2	460	540	28	180	130
Redry of flux	300-350°C for 2-4 hours.						
Other products	--						

Notes (1) Application codes and project specifications should always be referred to for specific requirements.

(2) Actual mechanical properties will be dependent on specific welding procedure (including shielding gas, flux, PWHT etc) and should always be confirmed by approval of an appropriate welding procedure.