DAIKOFLUX 480-W

SAW

PRODUCT DESCRIPTION

It is an agglomerated aluminate-basic welding flux suitable for joint welding of low alloy structural steels, boiler steels, pipe steels and fine grain steels. The flux is suitable for single and multilayer welding of longitudinal, circumferential and fillet welds. It can be used for single, tandem, twin and multi-wire welding system. Excellent slag removal in narrow grove welds of thick wall sections. Typical characteristics of this flux is a medium Manganese and Silicon pick up as well as a very low diffusible hydrogen level. This type of flux is suitable for both AC and DC welding.

APPLICATION

The main applications of this flux are joint welding of non-alloy and low-alloy structural steels according to EN ISO 10025, fine-grain structural steels with YS<420 MPa and boiler steels such P265GH (H II) and 16Mo3/A355 grade 91.

SPECIFICATION

Flux type	Aluminate-basic
Boniszewski index (B.I.)	~ 1.7
Classification EN ISO 14174	S A AB 1 67 AC H5
Grain size EN ISO 14174	2-16
Density	1.1 kg/dm³
Process	SAW
Current	DC or AC, in single/multi-wires up to 800 A using one wire electrode
Redrying	at 200±50 °C effective temperature for 2h
Packaging	25 kg plastic bag/metallic drum

Typical chemical analysis of the flux (%)

SiO_2+TiO_2	Al_2O_2+MnO	CaO + MgO	CaF_2
20	30	30	15

Typical chemical analysis of the all weld metal (%)

In combination with wire electrode	AWS A5.17 AWS A5.23	C%	Si%	Mn%	Cu%	Ni%	Cr%	Mo%
DAIKOWS S2	EM12K	0.05-0.08	0.2-0.4	1.1-1.5	–	–	–	–
DAIKOWS S2Si	EM12K	0.05-0.08	0.3-0.5	1.1-1.5	–	–	–	–
DAIKOWS S3Si	EH12K	0.05-0.08	0.3-0.5	1.5-1.9	–	–	–	–
DAIKOWS Mo.B	EA2	0.04-0.08	0.2-0.4	1.1-1.5	–	–	–	0.5
DAIKOWS 66	EG	0.05-0.08	0.2-0.5	1.1-1.5	0.5	0.7	0.2	0.1
DAIKOWS S3NiMo	EF3	0.06-0.10	0.2-0.5	1.5-1.9	–	0.9	–	0.5

Mechanical properties of all weld metal

In combination with wire electrode	Heat treat.	YS [MPa]	UTS [MPa]	Elong. [%]	Impcat ISO-V [Joule] ±0 °C 32 °F	-20 °C -4 °F	-30 °C -22 °F	-40 °C -40 °F
DAIKOWS S2	AW	>420	>500	>22	>100	>70	>47	>27
DAIKOWS S2	PWHT (1)	>400	>490	>22	>100	>70	>47	>27
DAIKOWS S2Si	AW	>430	>500	>22	>100	>70	>60	>47
DAIKOWS S2Si	PWHT (1)	>400	>490	>22	>100	>70	>60	>47
DAIKOWS S3Si	AW	>470	>560	>22	<100	>80	>70	>47
DAIKOWS S3Si	PWHT (1)	>400	>500	>22	>100	>80	>70	>27
DAIKOWS Mo.B	AW	>490	>570	>20	>100	>80	>47	–
DAIKOWS Mo.B	PWHT (2)	>470	>550	>22	>100	>80	>47	–
DAIKOWS 66	AW	>470	>550	>22	>100	>70	>47	–
DAIKOWS 66	PWHT (1)	>400	>500	>20	>100	>70	>47	–
DAIKOWS S3NiMo	AW	>580	>680	>20	–	–	>70	>47

Heat treatment: AW = as welded
PWHT = post weld heat treatment (1) at 580 °C x 1 hours; (2) at 620 °C x 15 hours

Classification

In combination with wire electrode	AWS A5.17 AWS A5.23	ISO 14171-A	AWS A5.17M AWS A5.23M	AWS A5.17 AWS A5.23
DAIKOWS S2	EM12K	S 42 3 AB S2	F48A4/P4-EM12K	F7A4/P4-EM12K
DAIKOWS S2Si	EM12K	S 42 3 AB S2Si	F48A4/P4-EM12K	F7A4/P4-EM12K
DAIKOWS S3Si	EH12K	S 46 4 AB S3Si	F55A4/F49P4-EH12K	F8A5/F7P4-EH12K
DAIKOWS Mo.B	EA2	S 46 3 AB Mo.B	F55A3/P3-EA2-A2	F8A2/P2-EA2-A2
DAIKOWS 66	EG	S 46 3 AB S2NiCu	F55A3/F49P3-EG-G	F8A2/F7P2-EG-G
DAIKOWS S3NiMo	EF3	S 50 4 AB S3NiMo	F69A4-EF3-F3	F9A4-EF3-F3