DAIKOFLUX 470-W

SAW

PRODUCT DESCRIPTION

Designed for all SAW processes and welding of ordinary carbon-manganese, low alloy structural and boiler quality steel with yield strength up to 355 N/mm² (thickness<25 mm) in combination with wire grades DAIKOWS S2, S2Si, Mo.B and 1CrMo. The flux is suitable for high speed, up to 2 meters/minute, and provides very good weld bead appearance and excellent slag release even with small angle preparation and fillet welds. Its chemical nature provides high resistance to cracking on single pass applications. Additional features are resistance to porosity when welding rusty plates, heavy scale or other conditions of plate surface (e.g. special primers coatings) and low sensitivity towards arc blow.

APPLICATION

Preferably used for single-run, two run and fillet welding. Main field of applications are LP-gas cylinders, structural steel works, thin-walled containers and fin-tube walls.

SPECIFICATION

Flux type	Aluminate-rutile
Boniszewski index (B.I.)	~ 0.6
Classification EN ISO 14174	S A AR 1 76 AC
Grain size EN ISO 14174	4-16
Density	1.0 kg/dm³
Process	SAW
Current	DC or AC, up to 800 A using one wire electrode
Redrying	flux that has picked up moisture has to be re-dried at 200±50 °C 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
25	55	5	10

Typical chemical analysis of the all weld metal (%)

In combination with wire electrode	C%	Si%	Mn%	Mo%	Cr%
DAIKOWS S2	0.04-0.08	0.3-0.6	1.0-1.4	-	-
DAIKOWS S2Si	0.04-0.08	0.4-0.8	1.0-1.4	-	-
DAIKOWS Mo.B	0.04-0.08	0.3-0.7	1.0-1.4	0.4-0.6	-
DAIKOWS 1CrMo	0.04-0.08	0.3-0.7	0.9-1.3	0.4-0.6	1.0

Mechanical properties of all weld metal

In combination with wire electrode	YS [MPa]	UTS [Mpa]	Elong. [%]	Impcat ISO-V [Joule] ±0 °C RT	-20 °C +32 °F	-4 °F
DAIKOWS S2	≥420	≥530	≥22	≥70	≥47	-
DAIKOWS S2Si	≥430	≥540	≥22	≥70	≥47	≥27
DAIKOWS Mo.B	≥480	≥580	≥20	≥60	≥47	≥27
DAIKOWS 1CrMo *	≥470	≥570	≥20	≥50	-	-

(*) PWHT post weld heat treatment at 680° C / 10 hours

Classification

All weld metal multiple pass classification of wire-flux combinations

In combination with wire electrode	AWS A5.17 AWS A5.23	ISO 14171 ISO 24598	AWS A5.17M AWS A5.23M	AWS A5.17 AWS A5.23
DAIKOWS S2	EM12K	S 42 A AR S2	F48A0-EM12K	F7AZ-EM12K
DAIKOWS S2Si	EM12K	S 42 2 AR S2Si	F48A2-EM12K	F7A0-EM12K
DAIKOWS Mo.B	EA2	S 46 2 AR S2Mo	F55A2-EA2-A2	F8A0-EA2-A2
DAIKOWS 1CrMo	EB2	S S CrMo1 AR	F55PZ-EB2-B2	F8PZ-EB2-B2

Two-run classification of wire-flux combination

In combination with wire electrode	AWS A5.17 AWS A5.23	ISO 14171 ISO 24598	AWS A5.17M AWS A5.23M	AWS A5.17 AWS A5.23
DAIKOWS S2	EM12K	S 3T A AR S2	F43TA0-EM12K	F6TAZ-EM12K
DAIKOWS S2Si	EM12K	S 3T 2 AR S2Si	F43TA2-EM12K	F6TA0-EM12K
DAIKOWS Mo.B	EA2	S 4T 2 AR S2Mo	F49TA2-EA2	F7TA0-EA2
DAIKOWS MnMo	EA3	S 5T 2 AR S4Mo	F55TA2-EA3	F8TA0-EA3
DAIKOWS 1CrMo	EB2	-----	F49TPZ-EB2	F7TPZ-EB2