

LA490 FLUX

PRODUCT DESCRIPTION

Agglomerated fluoride basique flux for 9% chromium creep resisting steels.

Basicity Index (according to Boniszewski) is -3.0. Particle size is 0.2–2.0mm. Nominal composition of the flux is:



SPECIFICATIONS

BS EN ISO 14174 S A FB 1 55 AC H5

ASME IX QUALIFICATION

QW432 F-No QW442 A-No

MATERIALS TO BE WELDED

Major application is for welding modified 9CrMo (P91 and P92) creep resisting steels (data sheet A-17 and A-20).

APPLICATIONS

The LA490 flux is metallurgically neutral with respect to Mn and Si. It is a hydrogen controlled flux depositing low diffusible hydrogen content weld metal and hence is suitable for thick section joints. Also suitable for tandem and multi-wire welding systems.

WELDING GUIDELINES

Guidelines will depend on the material being welded. For further details see the appropriate alloy data sheet eg. for modified 9CrMo (P91) using 9CrMoV-N wire see data sheet A-17 and for P92 using 9CrWV wire see data sheet A-20.

TYPICAL OPERATING PARAMETERS

Current: DC+ or AC, 800A maximum.

PACKAGING DATA

Metrode LA490 flux is supplied in hermetic moisture resistant "Sahara™" bag.

STORAGE

Preferred storage conditions for open packaging: <60%RH, >18°C.

If flux has become damp or has been stored for a long period, it should be redried in the range 300-350°C for 1-2 hours.

FUME DATA

SAW fume is negligible.

TYPICAL WELD DEPOSIT ANALYSIS, WT%

Wire	C	Mn	Si	S	P	Cr	Ni	Mo	N	Others
9CrMoV-N	0.09	0.7	0.2	0.006	0.008	8.7	0.6	1.0	0.05	0.2V, 0.05 Nb
9CrWV	0.09	0.8	0.3	0.006	0.008	8.54	0.54	0.4	0.04	1.7W, 0.14V, 0.054Nb, 0.001B

ALL-WELD MECHANICAL PROPERTIES

760°C/2h		
Wire	9CrMoV-N	9CrWV
Tensile strength (MPa)	720	700
0.2% proof strength (MPa)	610	580
Elongation [%] 4d	25	25
Impact ISO-V[J] +20°C	45	45