

LA492 FLUX

Product description

Agglomerated calcium silicate flux for submerged arc welding.

Basicity Index (according to Boniszewski) is ~2.2. Particle size is 0.2–2.0mm. Nominal composition of the flux is:

40%(CaO+MgO) + 20%(CaF₂) + 20%(Al₂O₃+MnO) + 20%(SiO₂+TiO₂)

Specifications

BS EN 760 S A CS 1 55 DC

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 LA492 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 parameters

Current: DC+ or AC, 800A maximum.

Packaging data

Metrode LA492 flux is supplied in sealed moisture resistant 22.5kg metal drums.

Storage

Preferred storage conditions for open drums: <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	0.08	0.5	0.3	0.01	0.01	8.3	0.6	1	0.05	0.16V, 0.05 Nb
9CrWV	0.08	0.7	0.3	0.01	0.01	8.4	0.4	0.4	0.04	1.6W, 0.14V, 0.04Nb

Typical Mechanical properties

Wire	Tensile strength, MPa	0.2% proof stress, MPa	Elongation on 4d, %	Impact energy, J
9CrMoV-N (760°C/2-4h)	720	610	25	45 at +20°C
9CrWV (760°C/2-4h)	700	580	25	45 at +20°C