

OP 90W is a special agglomerated flux for welding high creep resistant steels like P91 and P92. OP 90W is in particular recommended to be combined with OE-S1 CrMo91 and OE-S1 CrMo92, where the high purity of the wires and the high basicity index of the flux provides a maximum resistance to hot cracking at high interpass temperatures. High charpy toughness is combined with good creep properties. Flux from DRYBAG can be used without re-drying (300-350°C)

Grain size according to EN-ISO 14174: 2-16.

Classification		
	EN ISO	14174: S A FB 1 55 DC H5
OE-S1 CrMo91	AWS	A5.23: F9PZ-EB91-B91
OE-S1 CrMo92	AWS	A5.23: F9PZ-EG-G

Flux Main Components	
CaO + MgO	40 %
Al <sub>2</sub> O <sub>3</sub> + MnO	25 %
CaF <sub>2</sub>	20 %
SiO <sub>2</sub> + TiO <sub>2</sub>	10 %

**Boniszewski Basicity** 3

### Chemical analysis (Typical values in %)

		C	Mn	Si	Cr	Ni	Mo	Nb	V	W	N
All weld metal	OE-S1Cr Mo91	0.10	0.7	0.2	8.5	0.4	0.95	0.05	0.2	-	0.04
All weld metal	OE-S1Cr Mo92	0.10	0.7	0.2	8.5	0.5	0.4	0.05	0.2	1.7	0.04

### All-weld metal Mechanical Properties

	Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)
OE-S1CrMo91	760°Cx4hr	≥ 540	620-760	≥ 17
OE-S1CrMo92	760°Cx4hr	≥ 540	620-760	≥ 17

### All-weld metal Mechanical Properties - CV

	Heat Treatment	Impact Energy (J)	
		+20 °C	0 °C
OE-S1CrMo91	760°Cx4hr	≥ 50	≥ 27
OE-S1CrMo92	760°Cx4hr	≥ 50	

### Typical applications

	Materials
OE-S1 CrMo91	ASTM A355 Gr. P91 (T91); A213/213M Gr T91; A182 F91EN: 1.4903 , X10CrMoVNb 9-1
OE-S1 CrMo92	ASTM A355 Gr. P92 (T92); A213/213M Gr T92; A182 F92 ; NF 616

Redrying
300-350°Cx2-4h

Current Conditions
DC+

## Packaging data

Packaging Type	DRY
Weight (kg)	25
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