

OP 1250A is an agglomerated alloy bearing flux used for hard facing applications in combination with low alloy OE-S2 and OE-S2Mo wire electrodes. Applications include the hard facing of machine gear parts, rails, etc. The alloying effect of the flux depends, to a large degree, on the welding parameters chosen. For instance, optimum welding parameters for a 4 mm wire electrode are approximately 600 A, 32 V, 50 cm/min. OP 1250A is suitable for use on both DC+ and AC. Damp flux should be re-dried at 300-350°C. Grain size according to EN 760: 2-20.

| Wire | Classification              |
|------|-----------------------------|
|      | EN 760: SA CS 3 97 CCrMo AC |

| Wire | Approvals | Grades |
|------|-----------|--------|
|      |           |        |

| Flux Analysis                        |      |
|--------------------------------------|------|
| Al <sub>2</sub> O <sub>3</sub> + MnO | 20 % |
| CaF <sub>2</sub>                     | 10 % |
| SiO <sub>2</sub> + TiO <sub>2</sub>  | 40 % |
| CaO + MgO                            | 30 % |

### Basicity to Boniszewski

### Analysis of all-weld metal (Typical values in %)

| Wire        | C    | Mn   | Si   | Cr   | Ni | Mo   | Nb | N | Cu |
|-------------|------|------|------|------|----|------|----|---|----|
| OE-S2-1st   | 0.10 | 1.30 | 0.50 | 0.30 | -  | 0.10 | -  | - | -  |
| OE-S2-2nd   | 0.10 | 1.40 | 0.70 | 0.50 | -  | 0.20 | -  | - | -  |
| OE-S2-3rd   | 0.10 | 1.50 | 0.90 | 0.80 | -  | 0.30 | -  | - | -  |
| OE-S2Mo-1st | 0.10 | 1.40 | 0.50 | 0.50 | -  | 0.30 | -  | - | -  |
| OE-S2Mo-2nd | 0.10 | 1.40 | 0.50 | 0.50 | -  | 0.40 | -  | - | -  |
| OE-S2Mo-3rd | 0.10 | 1.50 | 0.70 | 0.70 | -  | 0.50 | -  | - | -  |

### All-weld metal Mechanical Properties

| Wire        | Heat Treatment | Yield Strength<br>N/mm <sup>2</sup> | Tensile Strength<br>N/mm <sup>2</sup> | Elongation A5<br>(%) | Hardness |
|-------------|----------------|-------------------------------------|---------------------------------------|----------------------|----------|
| OE-S2-1st   | As Welded      | -                                   | -                                     | -                    | 220 HB   |
| OE-S2-2nd   | As Welded      | -                                   | -                                     | -                    | 225 HB   |
| OE-S2-3rd   | As Welded      | -                                   | -                                     | -                    | 250 HB   |
| OE-S2Mo-1st | As Welded      | -                                   | -                                     | -                    | 225 HB   |
| OE-S2Mo-2nd | As Welded      | -                                   | -                                     | -                    | 230 HB   |
| OE-S2Mo-3rd | As Welded      | -                                   | -                                     | -                    | 260 HB   |

### Packaging data

25kg heavy duty sealed polythene sacks

Further forms of delivery on request.

### Current condition

AC; DC+