

LEXAL F500 is a special agglomerated flux for welding austenitic stainless steels including stabilised compositions. LEXAL F500 is neutral and it is used for welding both single wire and multiwire. Suitable for welding thin plates at high travel speeds. Excellent slag detachability even at high interpass temperatures. Damp flux should be re-dried at 300-350°C.

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

#### Classification

EN ISO 14174: S A FB 2

#### Approvals

|                  | BV   | DNV  | GL     | LRS     | RINA       | TÜV |
|------------------|------|------|--------|---------|------------|-----|
| AS 308L          |      |      |        |         |            | ●   |
| AS 309L          |      | 309L | 4332   |         |            | ●   |
| AS 309LMo        |      |      |        |         | F 309LMo   |     |
| AS 316L          |      | 316L | 4404   |         |            | ●   |
| AS 347           |      |      |        |         |            | ●   |
| LEXAL S 22 9 3 N | (UP) | (*)  | (4462) | (31803) | (F 2209 M) |     |

#### Flux Main Components

|                                |      |
|--------------------------------|------|
| CaO + CaF <sub>2</sub> + MgO   | 54 % |
| Al <sub>2</sub> O <sub>3</sub> | 37 % |
| SiO <sub>2</sub>               | 7 %  |

Boniszewski Basicity 2.2

#### Chemical analysis (Typical values in %)

|                |                  | C    | Mn  | Si  | Cr   | Ni  | Mo  | Nb | Cu     | N    |
|----------------|------------------|------|-----|-----|------|-----|-----|----|--------|------|
| All weld metal | AS 308L          | 0.02 | 1.5 | 0.5 | 18   | 9   | -   | -  | ≤ 0.35 | -    |
| All weld metal | AS 309L          | 0.02 | 1.5 | 0.5 | 22   | 13  | -   | -  | -      | -    |
| All weld metal | AS 309LMo        | 0.02 | 1.5 | 0.5 | 20   | 14  | 2.5 | -  | -      | -    |
| All weld metal | AS 316L          | 0.02 | 1.5 | 0.5 | 18   | 10  | 2.5 | -  | -      | -    |
| All weld metal | AS 347           | 0.07 | 1.5 | 0.5 | 18   | 9   | -   | 1  | ≤ 0.35 | -    |
| All weld metal | ER308LCF         | 0.02 | 1.9 | 0.3 | 19.5 | 10  | -   | -  | ≤ 0.35 | -    |
| All weld metal | LEXAL S 22 9 3 N | 0.03 | 1.5 | 0.5 | 22   | 8.5 | 3   | -  | -      | 0.18 |

#### All-weld metal Mechanical Properties

|                  | Heat Treatment | Yield Strength (N/mm <sup>2</sup> ) | Tensile Strength (N/mm <sup>2</sup> ) | Elongation A5 (%) |
|------------------|----------------|-------------------------------------|---------------------------------------|-------------------|
| AS 308L          | As Welded      | ≥ 350                               | ≥ 500                                 | ≥ 35              |
| AS 309L          | As Welded      | ≥ 400                               | ≥ 550                                 | ≥ 30              |
| AS 309LMo        | As Welded      | ≥ 370                               | ≥ 550                                 | ≥ 25              |
| AS 316L          | As Welded      | ≥ 350                               | ≥ 520                                 | ≥ 30              |
| AS 347           | As Welded      | ≥ 500                               | ≥ 570                                 | ≥ 30              |
| ER308LCF         | As Welded      | ≥ 350                               | ≥ 500                                 | ≥ 35              |
| LEXAL S 22 9 3 N | As Welded      | ≥ 600                               | ≥ 700                                 | ≥ 30              |

### All-weld metal Mechanical Properties - CV

|                  | Heat Treatment | Impact Energy (J) |        |         |
|------------------|----------------|-------------------|--------|---------|
|                  |                | +20 °C            | -60 °C | -196 °C |
| AS 308L          | As Welded      | ≥ 75              |        |         |
| AS 309L          | As Welded      | ≥ 70              | ≥ 70   |         |
| AS 309LMo        | As Welded      | ≥ 65              |        |         |
| AS 316L          | As Welded      | ≥ 75              |        |         |
| AS 347           | As Welded      |                   | ≥ 70   |         |
| ER308LCF         | As Welded      |                   |        | ≥ 50    |
| LEXAL S 22 9 3 N | As Welded      | ≥ 50              |        |         |

### Typical applications

|                  | Materials  |
|------------------|--|
| AS 316L          | ASME: ASTM A351 Grad CF3M, CF3MA<br>EN: X2CrNiMo18-10 (1.4404), X2CrNiMo18-12 (1.4435), X5CrNiMo18-10 (1.4401)                   |
| AS 347           | ASME: ASTM A336 Grad F321, F347<br>EN: X10CrNiTi18-9 (1.4541), X12CrNiTi18-9 (1.4870), X10CrNiNb18-9 (1.4550), X5CrNiNb (1.4543) |
| AS 308L          | ASME: AISI 304 - 304L - 302<br>EN: X5CrNi18-8 (1.4301), X2CrNi18-8 (1.4300)  |
| LEXAL S 22 9 3 N | ASME: A182 Grad F51, UNS S31803 - S31500 - S31200 - S32304<br>EN: X2CrNiMoN22-5-8 (1.4462)                                       |
| ER308LCF         | SME: AISI 304 - 304L - 302<br>EN: X5CrNi18-8 (1.4301), X2CrNi18-8 (1.4300)   |

#### Redrying

300-350°Cx2-4h

#### Current Conditions

AC; DC+

### Packaging data

| Packaging Type | PE |
|----------------|----|
| Weight (kg)    | 25 |
| -              | ●  |