

## INOX 308L

Electrodes MMA [SMAW]

Stainless and high alloyed steels

| CLASSIFICATION:                                                                                   | APPROVALS: | APPLICATION:                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EN ISO 3581-A : E 19 9 LR 12<br>DIN 8556 : E 199L R 12<br>AWS A-5.4 : E 308L-16<br>W.Nr. : 1.4316 | UDT        | Power generation industry<br>Constructions & Engineering<br>Metallurgy (Steelworks)<br>Petrochemical and chemical industry<br>Shipbuilding&Offshore<br>Agriculture<br>Light construction and hobby |

- Rutile electrode, designed for welding stainless, austenitic, austenitic Nb or Ti stabilized steels,
- ferritic stainless steels from the 13% Cr group.
- Very good primary and secondary ignition (also cold), focused arc.
- Easy formation of the correct, smooth weld, self-moving slag.
- Intergranular corrosion-resistant filler metal up to 350°C, resistant to hot cracking.

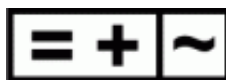
### Application

Food processing equipment, beer brewing (yeast vats, fermentation vats), milk processing, pharmaceutical equipment, winemaking, manufacturing of fasteners, flanges, architectural applications (roofing, urban accessories, cladding, doors, windows), automotive and aerospace components , heat exchangers, pipes, sanitary ware, tanks and containers, milk trucks, citrus and other fruit industry, balustrades, trim, dyeing industry, construction materials.

### Base material

| AISI/ASTM | EN 10088-1/2    | EN 10213-4       | W.Nr   | PN       |
|-----------|-----------------|------------------|--------|----------|
| 304L      | X2 CrNi 18 11   |                  | 1.4306 | 00H18N10 |
| 304LN     | X2 CrNiN 18 10  |                  | 1.4311 |          |
|           | X4 CrNi 18 10   | GX5 CrNi 19 10   |        |          |
|           | X6 Cr 13        |                  | 1.4308 |          |
| 304       | X5 CrNi 18 10   |                  | 1.4301 | 0H18N9   |
| 321       | X6 CrNiTi 18 10 |                  | 1.4541 | 1H18N9T  |
| 347       | X6 CrNiNb 18 10 |                  | 1.4550 | H18N12Nb |
|           |                 | GX5 CrNiNb 19 10 | 1.4552 |          |
| 302       | X12 CrNi18 8    |                  | 1,4300 |          |
| 305       |                 | GX10 CrNi 18 8   | 1.4312 |          |
| 304H      | X6 CrNi18 11    |                  | 1.4948 |          |
| 308       | X5 CrNi18 11    |                  | 1.4303 |          |
| 347       | X5 CrNiNb18 9   |                  | 1.4543 |          |
| 301       |                 |                  | 1.4310 | 1H18N9   |
|           | X10 CrNiNb18 10 |                  | 1.6905 |          |
| 405       | X7 CrAl13       |                  | 1.4002 |          |
| 410       | X10 Cr13        |                  | 1.4006 |          |
| 430       | X8 Cr17         |                  | 1.4016 |          |
| 410/420   | X15 Cr13        |                  | 1.4024 |          |
| 420       | X20 Cr13        |                  | 1.4021 |          |
| 305       | G-X10 CrNi18 8  |                  | 1.4312 |          |

### Typical chemical composition %

|                                       |                                                                                                            |                     |                       |                       |          |
|---------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------|-----------------------|-----------------------|----------|
| <b>C</b><br><0,03                     | <b>Si</b><br>0,80                                                                                          | <b>Mn</b><br>0,70   | <b>Cr</b><br>19,00    | <b>Ni</b><br>10,00    |          |
| Typical mechanical properties         |                                                                                                            |                     |                       |                       |          |
| Yield strength Re [N/mm2]             | >320                                                                                                       |                     |                       |                       |          |
| Tensile strength Rm [N/mm2]           | >510                                                                                                       |                     |                       |                       |          |
| Elongation A5 [%]                     | >30                                                                                                        |                     |                       |                       |          |
| Impact energy Kv [J]                  | >55J (20°C) / >30 J (-190°C) /                                                                             |                     |                       |                       |          |
| Coating type                          | rutile                                                                                                     |                     |                       |                       |          |
| Ferrite content                       | FN = app. 5                                                                                                |                     |                       |                       |          |
| Weld metal recovery                   | 110%                                                                                                       |                     |                       |                       |          |
| Welding current                       |                           |                     |                       |                       |          |
| Welding positions                     |                           |                     |                       |                       |          |
| Redrying                              | 300 - 350°C / 2 h                                                                                          |                     |                       |                       |          |
| Additional description                | Austenitic microstructure with ferrite content at the level of 4-10 FN. Inter-pass temperature about 150°C |                     |                       |                       |          |
| Welding parameters and packing        |                                                                                                            |                     |                       |                       |          |
| Ø                                     | Length [mm]                                                                                                | Welding current [A] | Weight of packet [kg] | Weight of carton [kg] | Pcs/1 kg |
| 2,0                                   | 300 /                                                                                                      | 30-60               | 1,3                   | 7,8                   | 85       |
| 2,5                                   | 300 /                                                                                                      | 40-85               | 1,4                   | 8,4                   | 54       |
| 3,2                                   | 350 /                                                                                                      | 60-120              | 1,7                   | 10,2                  | 27       |
| 4,0                                   | 350 /                                                                                                      | 110-165             | 1,7                   | 10,2                  | 18       |
| 5,0                                   | 350 /                                                                                                      | 165-230             | 1,7                   | 10,2                  | 12       |
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