

COREFIL 309MoLP

Flux cored wires [FCAW]

Stainless and high alloyed steels

| CLASSIFICATION: | APPROVALS: | APPLICATION: |
|---|------------|--|
| EN ISO 17633-A : T 23 12 3 LP C1(M21) 1 DIN 8556 : 23 12 2 AWS A-5.22 : E 309LMoT1-1/4 W.Nr. : 1.4459 | | Power generation industry Constructions & Engineering Petrochemical and chemical industry Shipbuilding&Offshore |

- Rutile flux cored wire for joining 316 and 308 stainless steels with non-alloy construction steels and high-alloy ferritic steels.
- Especially recommended for high-performance welding in all positions.
- The weld deposit provides a high level of protection against hot cracking, even in the case of high thinning.
- For making buffer layers on unalloyed steels clad with materials containing Mo.
- Very stable arc, self-removing slag.
- Produces a light joint with a very fine scale.
- Joint resistant to working temperature up to 1000°C.

Application

Furnaces (burners, doors, ventilators, piping, recuperators, grates, blower boxes), paper mill equipment, oil refining (catalytic recovery systems, recuperators), power industry (dust burners, pipe hangers), thermal treatment, waste incineration plants, rotary kilns, calciners, automotive exhaust system components, heat exchangers, glass blowing components, aircraft parts, boiler partitions, hearth linings, porcelain kiln baskets, annealing containers, inserts for chimneys operating in dry conditions.



Base material

| DIN | W.Nr. | AISI/ASME |
|--|--------|-----------|
| X2CrNiMo 17 12 2 | 1.4404 | 316L |
| X2CrNiMo 18 14 3 | 1.4435 | 316L |
| X2CrNiMoN 17 11 2 | 1.4406 | 316LN |
| X2CrNiMoN 17 13 3 | 1.4429 | |
| X4CrNiMo 17 13 3 | 1.4436 | |
| X6CrNiMoTi 17 12 2 | 1.4571 | 316Ti |
| X10CrNiMoTi 17 3 | 1.4573 | 316Ti |
| X6CrNiMoNb 17 12 2 | 1.4580 | 316Cb |
| X5 CrNiMo17 12 2 | 1.4401 | 316 |
| G-X10 CrNiMo18 9 | 1.4410 | |
| G-X6 CrNiMo18 12 | 1.4437 | |
| Dissimilar connections between non-alloy and low-alloy structural steels | | |
| QT steels with each other or with other materials | | |
| Non-alloy and low-alloy boiler or structural steels with Cr, CrNi, CrNiMo stainless steels | | |
| Ferritic-austenitic connections in boilers and pressure vessels | | |

Typical chemical composition %

| C | Si | Mn | Cr | Ni | Mo |
|-------|------|------|-------|-------|------|
| <0.03 | 0,65 | 0,75 | 22,50 | 12,80 | 2,30 |

Typical mechanical properties

| | |
|---|--|
| Yield strength Re [N/mm²] | > 350 (typ. 535) |
| Tensile strength Rm [N/mm²] | > 550 (typ. 695) |
| Elongation A5 [%] | > 25 (typ.34) |
| Impact energy Kv [J] | 30 J (0°C) / |
| Wire/rod type | rutile cored |
| Flux type | rutile |
| Ferrite content | 22 |
| Welding current |  |
| Welding positions |  |
| Shielding gases acc. to EN ISO 14175 | C1 - 100% CO ₂ / M21 - Ar + 15 - 25% CO ₂ / |
| Remarks | The material can be a substitute for Corefil 309LP, provided that there are no temperatures during use at which molybdenum eutectics responsible for hot cracks are formed, and that the welding process for the weld metal with the addition of Mo is properly carried out. |

Welding parameters and packing

| ∅ | Welding current [A] | Voltage [V] | Gas flow | Weight of packet [kg] |
|-----|---------------------|-------------|----------|-----------------------|
| 1,2 | 150-300 | 24-33 | 20-25 | 15,0 |
| 1,6 | 200-400 | 24-35 | 20-25 | 15,0 |

METALWELD-FIPROM POLSKA spółka z o.o.

ul. Mikołajczyka 57, 41-200 Sosnowiec

+48 (32) 297 75 50 - 51

+48 (32) 297 75 88

export@metalweld.pl