

LNM 316L

CLASSIFICATION

| | | | |
|-------------|-------------|---------|---|
| AWS A5.9 | ER316L | A-Nr | 8 |
| ISO 14343-A | G 19 12 3 L | F-Nr | 6 |
| | | 9606 FM | 5 |

GENERAL DESCRIPTION

Solid wire with extra low carbon for welding stainless CrNiMo-steels
High resistance to intergranular corrosion and general corrosion conditions

WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PC/2G



PD/4F



PE/4G



PF/3Gu

SHIELDING GASES (ACC. ISO 14175)

| | |
|-----|--------------------------------------|
| M12 | Mixed gas Ar+ 0.5-5% CO ₂ |
| M13 | Mixed gas Ar+ 0.5-3% O ₂ |

CHEMICAL COMPOSITION (W%) TYPICAL WIRE

| C | Mn | Si | Cr | Ni | Mo |
|------|-----|-----|------|------|-----|
| 0.01 | 1.5 | 0.5 | 18.5 | 12.0 | 2.5 |

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

| Typical values | Shielding gas | Condition | 0.2% proof strength | Tensile strength | Elongation | Impact ISO-V(J) | |
|----------------|---------------|-----------|----------------------|----------------------|------------|-----------------|--------|
| | | | (N/mm ²) | (N/mm ²) | (%) | +20°C | -196°C |
| | M12 | AW | 420 | 620 | 40 | 80 | 20 |

EXAMPLES OF MATERIALS TO BE WELDED

| Steel grades | EN 10088 -1/-2 | EN 10213-4 | Mat. Nr | ASTM/ACI A240/A312/A351 | UNS |
|--|-------------------|------------------|---------|----------------------------|------------------|
| Extra low carbon [C < 0.03%] | | | | | |
| | X2CrNiMo17-12-2 | | 1.4404 | (TP)316L CF-3M | S31603 J92800 |
| | X2CrNiMo18-14-3 | | 1.4435 | (TP)316L | S31603 |
| | X2CrNiMoN17-11-2 | | 1.4406 | (TP)316LN | S31653 |
| | X2CrNiMoN17-13-3 | | 1.4429 | | |
| Medium carbon [C > 0.03%] | | | | | |
| | X4CrNiMo17-12-2 | | 1.4401 | (TP)316 | S31600 |
| | X4CrNiMo17-13-3 | | 1.4436 | | |
| | GX5CrNiMo19-11 | | 1.4408 | CF 8M | J92900 |
| Ti-,Nb stabilized | | | | | |
| | X6CrNiMoTi17-12-2 | | 1.4571 | 316 Ti | S31635 |
| | X6CrNiMoNb17-12-2 | | 1.4580 | 316 Cb | S31640 |
| | X6CrNiNb18-10 | | 1.4550 | (TP)347 | S34700 |
| | | GX5 CrNiNb 19-10 | 1.4552 | CF-8C | J92710 |

| Diameter (mm) | 0.8 | 1.0 | 1.2 |
|-------------------|-----|-----|-----|
| 15 kg spool BS300 | X | X | X |

Other sizes and packaging on request

LNM 316L: rev. C-EN04-19/01/16

All information in this data sheet is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.eu for any updated information. Fumes: Material Safety Data Sheets (MSDS) are available on our website.