



HILCHROME 309R WELDING ELECTRODES Ø 3,2 X 350MM - E309L-17 - E 23 12 LR 32



Standards

- AWS A5.4: E309L-17
- EN ISO 3581-A: E 23 12 L R 3 2
- Working material number: 1.4332

Type of coating

- Rutile

Current type

- AC/DC

Welding positions

- All positions, except vertical downward

Basic materials to be welded

- High-strength steels, unalloyed and alloy heat-treatable steels; stainless steel, ferritic chromium steel and austenitic CrNi steel; austenitic manganese steel
- Chemically resistant weld coatings ranging from ferritic-perlitic steels to fine-grain steels, including heat-resistant fine-grain steel
- Bonding dissimilar materials

Applications

- Power generation
- Repair and maintenance
- Oil and gas industry
- Processing industry

Chemical composition

- Carbon (C): 0.02%
- Manganese (Mn): 0.8%
- Silicon (Si): 0.7%
- Chromium (Cr): 23.2%
- Nickel (Ni): 12.5%

Mechanical properties

- Condition: as welded
- 0.2% Yield strength: ≥ 400 MPa
- Tensile strength: ≥ 550 MPa
- Elongation Lo = 5d: ≥ 30%
- Impact values:
 - 20 °C: ≥ 47 J
 - -60 °C: ≥ 32 J



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Welding current max.	110 A
Elongation min.	30 %
Tensile strength min.	550 N/mm ²
Yield strength min.	400 N/mm ²
Material number	1.4332
Welding process	MMA
ImpactValue	20°C ≥ 47 J
Diameter	3,2 mm
Length	350 mm
Weight	4,4 kg
AWS standard	AWS A5.4: E309L-17
EN standard	EN ISO 3581-A: E 23 12 LR 32
Welding positions	All positions, except vertical downwards
Coating type	Rutile