

AX-309LMo AX-4459

Material-No.: 1.4459

Standards

EN ISO 14343-A:	W 23 12 2 L / G 23 12 2 L
AWS A5.9:	ER309LMo mod.

Properties

Welding rod/ solid wire made of austenitic chromium-nickel-molybdenum steel with low carbon content and increased ferrite content for TIG or GMAW welding of stainless claddings, dissimilar steels (black-white joints) and buffer layers for build-up welding of Mo-alloyed steels.

Claddings and buffer layers are already corrosion-resistant in the first layer. No danger of martensite formation (root welding) even at higher degrees of fusion with unalloyed materials.

Operating temperatures for black/white joints maximum 300°C. For operating temperatures above 300°C and annealing treatments, nickel-based filler metals must be used.

Important base materials / Important applications

Joining of ferritic Cr stainless steels and austenitic Cr-Ni-(Mo) steels with each other and with unalloyed steels (black-white joints), unalloyed and alloyed quenched and tempered steels and for the first layer of chemically resistant Cr-Ni-Mo weld claddings.

Typical composition of welding rod / solid wire in %

C	Si	Mn	Cr	Ni	Mo
0,01	0,3	1,4	21,4	14,8	2,6

Mechanical properties of all-weld metal (typical values)

Yield strength $R_{p0,2}$	[MPa]	440
Tensile strength R_m	[MPa]	620
Elongation A ($L_0 = 5d_0$)	[%]	32
Impact work KV	[J]	100 at +20°C

Shielding gas: 100% Argon, PWHT: untreated

Operating data

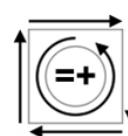
TIG:

Shielding gas: I1 (100%Argon)
acc. to ISO 14175



GMAW:

M12 (e.g. Ar+2,5%CO₂)
M13 (e.g. Ar+max.1,0%O₂)



Approvals

(Please ask for current scope)

Packaging and available sizes

Spools	Ø mm	1,0	1,2				
Rods	Ø mm x 1000mm	1,6					

Other dimensions on request.