

Shield-Bright 309MoL X-tra

AWS A5.22 E309LMoT0-1(4) / JIS Z3323 TS309LMo-FB0

Description and Application

- Shield-Bright 309MoL X-tra was developed for the welding of stainless steels to carbon or low alloy steels. For thick sections it is often preferable that the non-stainless steel should be buttered with a layer of Shield-Bright 309L X-tra and the joint made with Shield-Bright 316L X-tra or 308L X-tra. It was also developed for the first layer cladding of carbon and low alloy steels prior to subsequent layers from Shield-Bright 316L X-tra or 317L X-tra.

The service temperature of all the resulting weldments should not exceed about 700 °F (370 °C).

Multiple layer cladding with Shield-Bright 309MoL X-tra can be used for additional corrosion resistance in some applications in the pulp and paper industry. Shield-Bright 309MoL X-tra was developed for welding in the flat position and for horizontal fillet welds with flat to concave beads with excellent slag removal. It can be used with either 75% Ar / 25% CO₂ or 100% CO₂ gases.

Flux
CORED
WIRES

Shielding Gas : 100%CO₂ or 75%Ar/25%CO₂

Typical Mechanical Properties of All Weld Metal

Shielding gas	Yield Point N/mm ² {kgf/mm ² }	Tensile Strength N/mm ² {kgf/mm ² }	Elongation (%)
100%CO ₂	527 {54}	662 {68}	33
75%Ar/25%CO ₂	550 {49}	690 {70}	30

Typical Undiluted Weld Metal Analysis %

Shielding gas	C	Mn	Si	P	S	Cr	Ni	Mo	Ferrite No.
100%CO ₂	0.024	1.53	0.58	0.021	0.008	24.0	13.4	2.30	15-25
75%Ar/25%CO ₂	0.030	1.60	0.60	0.020	0.008	23.5	13.5	2.50	15-25

Approvals
JIS