

AI-1716FF

Specifications

AWS/ASME SFA A 5.9: ER316LMn

EN ISO 14343-A: 20 16 3 Mn N L

Description and Applications

AI-1716FF is a Fully austenitic stainless steel filler metal with typical ferrite content of 0.5 FN maximum. One of the primary uses of this filler metal is for the joining of similar and dissimilar cryogenic steels for applications down to -2690C. This filler metal also exhibits good corrosion resistance in acids and seawater, and it is particularly suited for corrosion conditions found in urea synthesis plants. It is non magnetic. The high Mn-content of the alloy helps to stabilize the austenitic microstructure and aids in hot cracking resistance.

AI-1716FF may be used for welding, repairing and overlaying of grades of stainless steel like type 316L when weld wear ferrite is needs to be low.

Application include: cryogenic industry to obtain low impact toughness and high strength

Typical Weldmetal Analysis

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
max	5.00	0.30	max	max	15.00	19.00	2.50	max	0.10
0.03	9.00	0.65	0.020	0.030	18.00	22.00	3.50	0.50	0.20

Mechanical Properties of Weldmetal

	As Welded
Yield Stress (Rp0.2)	≥320N/mm ²
Tensile Strength (Rm)	≥510N/mm ²
Elongation (4d)	≥25%
Shielding Gas	98% Ar + 2% O₂ or 100% Ar

Welding Parameters

Diameter (mm)	Current type	Amps
1.2	DC(+)	150-220
1.6	DC(+)	180-300

Welding Positions

(1G, 1F) Downhand/flat position, (2F) Horizontal position, (2G) Horizontal vertical position.

Disclaimer

All figures in this datasheet should be considered indicative only. No guarantee is made as to their accuracy.

All figures subject to change without notice. Batch analysis is available for all products sold. Should you require any further information, please contact us at sales@alloysint.com.au



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