NSD-316L

FOR WELDING LOW CARBON AUSTENITIC STAINLESSS STEELS CONTAINING A NOMINAL 19Cr-12Ni-2.5Mo

DATA SHEET NO. 70

SPECIFICATION	AWS A5.4	BS EN 1600	JIS Z 3221
CLASSIFICATION	E316L-15	E 19 12 3 L B 12	D316L-15

PRODUCT DESCRIPTION

A chemically basic flux with a low level of silicious minerals together with small alloy additions to compensate for arc losses.

The flux is concentrically extruded onto a fully alloyed core wire and bound by a blend of silicates that assures both coating strength and resistance to subsequent moisture absorption.

WELDING FEATURES OF THE ELECTRODE

Suitable for use on DC+ only the arc is very forceful but the nature of the molten slag allows easy vertical up and overhead welding.

Ideal for site welding as the extra shielding gas from the basic minerals ensures safety against porosity, even in windy conditions.

APPLICATIONS AND MATERIALS TO BE WELDED

Applications for the electrode are to be found in the Chemical, Petro-Chemical and Cryogenic Processing and Storage Industries as well as the Food, Brewery and Pharmaceutical Industries using the following materials:

ASTM	316	316L	316LN	CF3N	CF8M
UNS	S31603	S31600		S31653	

NSD-316L electrodes are use for their good resistance to corrosion and pitting against many acids on Austenitic Stainless Steels with 1.5 to 3.0 Mo plus Nb and Ti stabilised versions.

WELD METAL ANALYSIS COMPOSITION % BY Wt.

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Fe	FN
MIN	-	0.5	-	-	-	17	11	2.0	-		3.0
MAX	0.04	2.5	1.0	0.03	0.04	20	14	3.0	0.75		10.0
TYPICAL	0.03	1.6	0.2	0.01	0.03	19.5	12.8	2.7	0.15	Bal.	6.0

WELD METAL PROPERTIES (ALL WELD METAL)

PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS
Tensile strength	N/mm^2	490	573	
0.2% Proof stress	N/mm^2	-	485	
Elongation on 4d	%	30	40	
Reduction of Area (RA)	%	-	55	
Impact energy -196°C	J	-	29	

WELDING AMPERAGE DC+

Ø (mm)	2.0	2.6	3.2	4.0	5.0
MIN	35	60	90	120	160
MAX	80	100	130	170	210

OTHER DATA

Electrodes that have become damp should be re-dried at 150°C for 1 hour.

RELATED PRODUCTS

Please contact our Technical Department for detail.