NSB-309

FOR WELDING AUSTENITIC STAINLESS STEELS CONTAINING A NOMINAL 23Cr-12Ni USED FOR DISSIMILAR WELDS BETWEEN STAINLESS AND C-Mn STEELS

DATA SHEET NO. 64

SPECIFICATION	AWS A5.4	BS EN 1600	JIS Z 3221
CLASSIFICATION	E309-16	E 22 12 R	D309-16

PRODUCT DESCRIPTION

A metallurgically advanced rutile based flux formulated with balanced additions of chemically basic, amphoteric and acid 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

This unique flux formulation ensures excellent arc stability, ease of initial arc strike and re-strike minimal spatter on AC and virtually none on DC+. The resultant weld seams are smooth, evenly rippled and free from undercut while slag detachability is excellent. Metal recovery is some 103% with respect to core wire weight.

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 when the following is involved:

Transition welds between stainless steel and ferritic steel welding clad plate or as a buffer layer on ferritic steel before completing with a more conventional austenitic stainless steel.

WELD METAL ANALYSIS COMPOSITION % BY Wt.

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Fe	FN
MIN	-	0.5	-	-	-	22	12	-	-		8.0
MAX	0.15	2.5	1.0	0.03	0.04	25	14	0.75	0.75		20.0
TYPICAL	0.05	1.5	0.8	0.01	0.02	23	13.5	0.38	0.11	Bal.	15.0

ALL WELD METAL PROPERTIES

PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS
Tensile strength	N/mm^2	550	570	
0.2% Proof stress	N/mm^2	-	500	H.V. 220
Elongation on 4d	%	30	42	
Reduction of Area (RA)	%	-	50	
Impact energy 20°C	J	-	50	

WELDING AMPERAGE AC or DC+

Ø (mm)	2.0	2.6	3.2	4.0	5.0
MIN	50	70	110	120	160
MAX	70	110	130	150	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.