

780 / 780-CG / 780-FG

CLASSIFICATION

Flux	Flux/wire			
ISO 14174 S A AR/AB 1 78 AC H5		AWS A5.17 / A5.23	ISO 14171-A : MR	ISO 14171-A : TR
	780 / L-60	F7A0-EL12	S 42 0 AR/AB S1	S 4T 0 AR/AB S1
	780 / L-61	F7A2-EM12K	S 42 0 AR/AB S2Si	S 4T 2 AR/AB S2Si
	780 / LNS 140A	F8A2-EA2-G		S 4T 2 AR/AB S2Mo
	780 / L-70	F8A2-EA1-G		S 4T 2 AR/AB S2Mo

GENERAL DESCRIPTION

Active flux for limited pass welding

Good general purpose flux, including semi-automatic

High speed on dirty plate

Good resistance to porosity on rust and primer

Good slag removal, good bead shape

Product also available in a fine grain and coarse formula

Fine grain formula preferably used on high speed fillet welds applications

Good on circumferential welds on small diameters with low voltage

APPROVALS

Wire grade	BV	ABS	LRS	DNV	GL	RINA	PRS	RMRS	CRS	TÜV
L-60	A2YT	2YT	2YT	2YT	3YT	2YT				✓
LNS 135										✓
L-61	A3YT		2YM/3YT	2YM/3YT	3YT	3YT	2YM/3YT	3YT	3YT	✓
L-50-M (LNS 133U)										✓
LNS 140A (L-70)			3YT				3YT			✓
LNS 150										✓
LNS 151										✓

CHEMICAL COMPOSITION (W%), TYPICAL, ALL WELD METAL

Wire grade	C	Mn	Si	P	S	Mo
L-60	0.07	1.4	0.6	<0.03	<0.025	
L-61	0.07	1.6	0.7	<0.03	<0.025	
LNS 140A (L-70)	0.07	1.6	0.6	<0.03	<0.025	0.4

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Wire grade	Condition*	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J)	
					0°C	-20°C
L-60	MR	>420	510	28	50	
L-61	TR	>420	>540	28		50
LNS 140A (L-70)	TR	>420	>550	25		60

* MR : Multirun - TR : Two-run

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EXAMPLES OF MATERIALS TO BE WELDED

Code	Type/ Steel grades	Limited passes		
		L-60	L-61	LNS 140A (L-70)
Ship plates				
	A to D, A (H) 32 to D(H) 36	✓	✓	✓
General structural steels				
EN 10025 part 6	500 A			✓
EN 10025 part 3/part 4	S275 to S420, N,M	✓	✓	✓
EN 10149	S315 to S420, MC	✓	✓	✓
	S315 to S420, NC	✓	✓	✓
	S460, MC & NC			✓
EN 10025 part 2	S185 to S355, E295 to E360, JR(G1 & G2), J0, J2 (G3&G4)	✓	✓	✓
Boiler & pressure vessel steels				
EN 10028	P235 to P420, GH, N, NH, M, Q & QH	✓	✓	✓
	P235 to P460, GH, N, NH, M, Q & QH	✓	✓	✓
	P500, GH, N, NH, M, Q & QH, P235 S, P265 S	✓	✓	✓
	A37 to A52, CP, AP	✓	✓	✓

FLUX CHARACTERISTICS

Current type	DC/AC
Basicity (Boniszewski)	0.7
Solidification speed	High
Density (kg/dm ³)	1.4
Grain size (ISO 14174)	780 : 1 - 20 / 780-CG : 2 - 20 / 780-FG : 1 - 16

SUGGESTIONS FOR USE

Wire	Characteristics
L-60	To prevent defects from organic components
L-61	Reliable properties
LNS 140A (L-70)	For good impact toughness in two-run as welded

PACKAGING AND AVAILABLE SIZES

Unit	Net weight (kg)
Bag	25
Sahara ReadyBag™ (SRB)	25
Metal drum	250
Big Bag	500 / 1000