Flux

Classification

Flux 780	EN 760:	A AR/AB1 78 AC H5	
Flux/Wire	AWS A5.17/A5.23	EN 756 : MR	EN 756 : TR
780 / L60	F7A0-EL12	S 42 0 AR/AB S1	S 4T 0 AR/AB S1
780 / L61	F7A2-EM12K	S46 0 AR/AB S2Si	S 4T 0 AR/AB S2Si
780 / L70 (LNS140A)	F8A2-EA1-A2		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
Note: Use another flux for thick plates and multi-pass welding of thick plates (without particular caution) and for low quality steel

Approvals

Wire grade	BV	ABS	LR	DNV	GL	CTL	RINA	RMRS	CRS	TUV	DB	DWI	UDT
L60	x	x	x	x	x	x				x	x	x	x
L61	x		x	x	x	x	x	x	x	x	x		x
L70 (LNS 140A)			x							x	x		x

Chemical composition (w%), typical, all weld metal

Wire grade	C	Mn	Si	P	S	Mo
L-60	0.07	1.5	0.6	<0,030	<0,025	
L-61	0.07	1.6	0.7	<0,030	<0,025	
L-70 (LNS140A)	0.07	1.6	0.6	<0,030	<0,025	0.4

Mechanical properties, all weld metal

Wire grade	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Impact ISO-V(J) 0 °C	Impact ISO-V(J) -20°C
L60	MR	400	510	50	
L61	TR	> 420	> 520	50	
L70 (LNS140A)	TR	> 420	> 520		50

MR : multi run
TR : two run

SAW

LINCOLN ELECTRIC

Suggestions for use

Wire	Characteristics	Applications
L60	Lowest cost combination	Can be used in multipass:
L61	Reliable properties	with low silicon wires
L70 (LNS140A)	For good impact toughness as welded TR could be selected	on plates < 25mm with low voltage

Materials to be welded

	MR			TR		
	L60	L61	L70 / LNS 140A	L60	L61	L70 / LNS 140A
A to D, A (H) 32 to D(H) 36	x	x				x
A 32 to AH36	x	x	x	x	x	x
500 A						x
S275 to S420 N,M	x	x				x
S315 to S420 MC	x	x	x	x	x	x
S315 to S420 NC	x	x				x
S460 MC & NC						x
S185 to S355, E295 to E360 JR(G1 & G2), J0	x	x	x	x	x	x
S185 to S355, E295 to E360 J2 (G3&G4)	x	x				x
P235 to P420 GH	x	x	x	x	x	x
P235 to P420 GH N, NH, M, Q& QH	x	x				x
P235 to P460 GH, N, NH, M, Q & QH	x	x				x
P500 GH, N, NH, M, Q & QH						x
P235 S, P265 S	x	x				x
A37 to A52 CP	x	x	x	x	x	x
A37 to A52 CP, AP	x	x				x

Flux characteristics

Max current, one wire (A)	800
Currrent type	DC (+,-) / AC
Basicity (Boniszewski)	0.7
Solidification speed	high
Density (kg/dm3)	1.4
Grain	1 - 20

Packaging

Unit	Net weight (kg)
Bag	25
Steel drum	250
Big Bag	1000