

## CLASSIFICATION

Flux	Flux/wire			
<b>ISO 14174</b>		<b>AWS A5.17 / A5.23</b>	<b>ISO 14171-A : MR</b>	<b>ISO 14171-A : TR</b>
S A AB 1 56 AC H5	<b>860 / L-60</b>	F6A2-EL12	S 35 2 AB S1	
	<b>860 / LNS 135</b>	F6A2-EM12	S 35 2 AB S2	S 3T 0 AB S2
	<b>860 / L-61</b>	F7A2-EM12K	S 38 2 AB S2Si	S 3T 0 AB S2Si
	<b>860 / L-50M (LNS 133U)</b>	F7A2/F7P2-EH12K	S 42 2 AB S3Si	
	<b>860 / L-70</b>	F7A2-EA1-A2	S 42 2 AB S2Mo	S 4T 2 AB S2Mo
	<b>860 / LNS 140A</b>	F7A2-EA2-A2	S 42 2 AB S2Mo	S 4T 2 AB S2Mo
	<b>860 / LNS 163</b>	F7A4-EG-G	S 42 4 AB S2Ni1Cu	
	<b>860 / LNS T55</b>	F7A2/F7P4-EC1	S 50 3 AB SZ	

## GENERAL DESCRIPTION

Multi purpose neutral agglomerated flux

Good impact values in both multi-run (with L-60/L-61/L-50M) and two-run (with LNS 140A) techniques

High restraint cracking resistant

## APPROVALS

Wire grade	BV	ABS	LRS	DNV	GL	RMRS	RINA	CRS	TÜV
L-60									✓
LNS 135					3M/3T				✓
L-61	A3YM/A2YT	YM/2YT	3YM/2YT	3YM/2YT	3YM/2YT	3YM/2YT	3M/3YM/2YT	3YM/2YT	✓
LNS 140A (L-70)	A3YTM		3Y40M/3YT	3Y40TM	3YM/2YT				✓
LNS 150									✓
LNS 163									✓

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

Wire grade	C	Mn	Si	P	S	Mo
L-60	0.05	1.0	0.25	<0.025	<0.020	
LNS 135	0.06	1.3	0.3	<0.025	<0.020	
L-61	0.10	1.2	0.3	<0.025	<0.020	
L-50M (LNS 133U)	0.07	1.7	0.5	<0.025	<0.020	
LNS 140A (L-70)	0.05	1.3	0.3	<0.025	<0.020	0.4
LNS T55	0.06	1.8	0.7	<0.020	<0.015	

## MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Wire grade	Condition*	Yield strength (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Elongation (%)	Impact ISO-V(J)	
					0°C	-20°C
L-60	AW	360	480	30	80	50
LNS 135	AW	390	490	33	100	50
L-61	AW	430	510	32	100	60
	SR	400	505	32		115
L-50M (LNS 133U)	AW	460	530	28	120	80
	SR	420	520			115
LNS 140A (L-70)	AW	520	570	26		70
	SR	510	580	30		50
LNS T55	AW	520	610			70
	SR	470	560			70
LNS 163	AW	460	540	27		55

\* AW : As welded - SR : Stress relieved

860: rev. EN 24

## MATERIALS TO BE WELDED

Code	Type / Steel grades	Multirun											
		L-60		LNS 135		L-61		L-50M (LNS 133U)		LNS 140A(L-70)		LNS T55	
		AW	AW	AW	AW	SR	AW	SR	AW	SR			
<b>Ship plates</b>													
	A to D	✓	✓	✓	✓		✓						
	AH(32),DH(36), DH(40)	✓			✓	✓	✓	✓	✓	✓	✓		
<b>General structural steel</b>													
EN 10025 part 2	S185, S235, S275	✓	✓	✓	✓	✓							
	S355	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<b>Cast steel</b>													
EN 10213-2	GP240R	✓	✓	✓	✓	✓							
<b>Pipe materials</b>													
EN 10208-2	L210, L240, L290	✓	✓	✓	✓	✓							
	L360	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	L415				✓		✓	✓	✓	✓	✓		
	L445, L480						✓	✓					
API 5LX	X42, X46	✓	✓	✓	✓	✓							
	X52	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	X56, X60				✓		✓	✓	✓	✓	✓		
	X65, X70						✓	✓					
EN 10216-1/10217-1	P235, P275	✓	✓	✓	✓	✓							
	P355	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<b>Boiler &amp; pressure vessel steel</b>													
EN 10028-1	P235GH, P265GH, P295GH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	P355GH	✓	✓	✓	✓								
<b>Fine grained steels</b>													
EN 10025 part 3/part 4	S275	✓	✓	✓	✓	✓							
	S355	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	S420				✓			✓	✓	✓	✓		
	S460							✓					
<b>High yield strength steels</b>													
EN 10025 part 6	S460, S500							✓					

## FLUX CHARACTERISTICS

Current type	DC/AC
Basicity (Boniszewski)	1.1
Solidification speed	High
Density (kg/dm <sup>3</sup> )	1.4
Grain size (ISO 14174)	1 - 16

## PACKAGING AND AVAILABLE SIZES

Unit	Net weight (kg)
Bag	25
Sahara ReadyBag™ (SRB)	25
Big Bag	1000