Flux

Classification

Flux 8500	EN 760 :	S A FB 1 54 AC H5	
Flux/wire	AWS A5.17 / A5.23	EN 756 : MR	EN 756 : TR
8500 / L-61	F7A6/F6P8-EM12K	S 38 4 FB S2Si	S 4T 0 FB S2Si
8500 / L50M (LNS133U)	F7A6/F7P8-EH12K	S 42 6 FB S3Si	S 4T 2 FB S3Si
8500 / LNS 140A	F8A6-EA2-A2	S 46 4 FB S2Mo	
8500/ LNS 160	F7A8/P8-ENi1-Ni1	S 42 5 FB S2Ni1*	
8500/ LNS 162	F7A8/P8-ENi2-Ni2		
8500/ LNS 165 (LA 85)	F8A8/F7P8-ENi5-Ni5	S 50 6 FB Sz	
8500/LNS T55		S 50 5 FB Tz	

* Nearest classification

General description

Basic flux designed for carbon and low alloy steels
Excellent welding characteristics over a wide range of welding procedures
Superior mechanical properties
Impact properties are consistent throughout the weld joint, including the cap location
Excellent CTOD values

Approvals

Wire grade	BV	ABS	LRS	DNV	GL	RMRS
L-61					3YM/3YT	
L50M (LNS 133U)	A4YTM	3YTM	3YM/3YT	4Y40M/I3Y40T		
LNS 140A (L-70)		3YM			3Y40TM	3YM/3YT

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

Wire grade	C	Mn	Si	P	S	Mo	Ni
L-61	0.08	1.0	0.2	<0.02	<0.015		
L50M (LNS 133U)	0.07	1.4	0.3	<0.02	<0.015		
LNS 140A (L-70)	0.08	0.9	0.2	0.03	<0.025	0.4	
LNS 160	0.07	1.0	0.1	0.02	0.015		1
LNS 162	0.08	1.0	0.1	0.02	0.015		2
LNS 165 (LA85)	0.07	1.3	0.2	0.02	0.015	0.2	0.9
LNS T55	0.08	1.7	0.7	<0.015	<0.015		

Mechanical properties, typical, all weld metal

Wire grade	Condition	Yield strength (N/mm²)	Tensile strength (N/mm²)	Elongation (%)	Impact ISO-V(J) -20°C	-40°C	-60°C
L-61	MR	430	510	28	150	100	50
L50M (LNS 133U)	MR	440	540	28		110	
	SR	> 420	> 500	30		150	
LNS 140A (L-70)	MR	440	540	28		55	
LNS 160	AW	430	510	30		150	50
	SR	400	510	30		150	50
LNS 162	AW	470	560			150	50
	SR	450	530			150	50
LNS 165 (LA85)	AW	530	600	25		120	50
	SR	480	580	30		120	50
LNS T55	AW	530	620		120	80	
	SR	500	570			70	

MR: multi run / TR: two-run / AW : As welded / SR: Stress relieved

8500: rev. EN 23

SAW

Suggestions for use

Applications

Suitable for deep groove
Low temperatures requirements
Highly restrained constructions
Single and multi-wire systems
Off-shore and on-shore applications
Nuclear components

Materials to be welded

STEEL / STANDARD	TYPE	Multirun												
		L61	L50M (LNS133U)		LNS140A (L-70)		LNS160		LNS 162		LNS165		LNST55	
		AW	AW	SR	AW	SR	AW	SR	AW	SR	AW	SR	AW	SR
Ship plates														
	A to E	x	x	x									x	x
	AH(32),DH(36), EH(36)	x	x	x	x	x	x	x	x	x	x	x	x	x
General Structural steel														
EN 10025 part 2	S185, S235, S275	x	x	x									x	x
	S355	x	x	x	x	x	x	x	x	x	x	x	x	x
Cast steel														
EN 10213-2	GP240R	x	x	x									x	x
Pipe material														
EN 10208-1	L210, L240, L290	x	x	x									x	x
	L360	x	x	x	x	x	x	x	x	x	x	x	x	x
	L415		x		x	x					x	x	x	x
	L445, L480										x	x		
API 5LX	X42, X46	x	x	x										
	X52	x	x	x	x	x	x	x	x	x	x	x	x	x
	X56, X60		x		x	x					x	x	x	x
	X65, X70										x	x		
EN 10216-1/10217-1	P235, P275	x	x	x									x	x
	P355	x	x	x	x	x	x	x	x	x	x	x	x	x
Boiler & pressure vessel steel														
EN 10028-1	P235GH, P265GH, P295GH	x	x	x	x	x							x	x
Fine grained steel														
EN 10025 part 3/part 4	S275	x	x	x									x	x
	S355	x	x	x	x	x	x	x	x	x	x	x	x	x
	S420		x		x	x			x	x	x	x	x	x
	S460										x	x		

Flux characteristics

Current type	DC / AC
Basicity (Boniszewski)	2,8
Solidification speed	Medium
Density (kg/dm3)	1,3
Grain size	2-20

Packaging and available sizes

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