

# Lincolnweld® 842-H™

## CLASSIFICATION

Flux	Flux/wire	
ISO 14174 S A FB 1 55 AC H4	AWS A5.17 / A5.23	
	Lincolnweld® 842-H™ / L-61	F7A6/F6P8-EM12K-H4
	Lincolnweld® 842-H™ / L-50M (LNS 133U)	F7A8/F7P8-EH12K-H4
	Lincolnweld® 842-H™ / LNS 164 (LA 84)	F9A8/ F9P8-EF3-F3-H4
	Lincolnweld® 842-H™ / LNS 165 (LA 85)	F8A8/ F8P8-ENi5-Ni5-H4
	Lincolnweld® 842-H™ / LNS 140A	F8A4/ F7P4-EA2-A2-H4

## GENERAL DESCRIPTION

Designed to meet the specific welding requirements of the offshore construction industry where consistency in operability, impact toughness, and diffusible hydrogen is critical.

Ultra-Low Diffusible Hydrogen – Less than 3 mL/100g of deposited weld metal in DC and AC polarities.

Consistent impact toughness capable of exceeding CVN values of 160 J at -60° C in the body and cap pass for consistent CTOD toughness.

Excellent AC and DC operation – High current capacity for single or multiple arc configurations.

High Operator Appeal – Excellent slag detachment and wash-out.

## APPROVALS

Wire grade	ABS	DNV	LR	GL	TÜV	DB
L-50M (LNS 133U)	5YQM420 H5 (AC)	V YM42 H5 (AC)	5Y42M H5 (AC)	6Y42M H5 (AC)	✓	✓
LNS 164 (LA 84)	5YQM550 H5 (AC)	V YM55 H5 (AC)	5Y55M H5 (AC)	6Y55M H5 (AC)	✓	
LNS 165 (LA 85)	5YQM500 H5 (AC)	V YM50 H5 (AC)	5Y50M H5 (AC)	6Y50M H5 (AC)	✓	

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

Wire grade	C	Mn	Si	P	S	Mo	Ni
L-61	0.09	1.0	0.20	<0.02	<0.015		
L-50M (LNS 133U)	0.10	1.5	0.30	<0.02	<0.015		
LNS 164 (LA 84)	0.10	1.6	0.25	<0.02	<0.015	0.5	0.8
LNS 165 (LA 85)	0.06	1.35	0.2	<0.02	<0.015	0.2	0.9
LNS 140A (L70)	0.06	0.9	0.2	<0.02	<0.015	0.4	

## 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)		
					-40°C	-51°C	-60°C
L-61	AW	430	520	33		300	
	SR	360	480	38			350
L-50M (LNS 133U)	AW	480	580	31			190
	SR	420	550	32			160
LNS 164 (LA 84)	AW	640	710	25			140
	SR	610	690	27			120
LNS 165 (LA 85)	AW	530	610	29			185
	SR	530	620	30			150
LNS 140A (L70)	AW	470	550	27	90		
	SR	440	530	30	80		

AW : As welded - SR : Stress relieved

Lincolnweld® 842-H™, rev. C-EN02-01/02/16

All information in this data sheet is accurate to the best of our knowledge at the time of printing. Please refer to [www.lincolnelectric.eu](http://www.lincolnelectric.eu) for any updated information.  
Fumes: Safety Data Sheets (SDS) are available on our website.

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## EXAMPLES OF MATERIALS TO BE WELDED

Code	Type / Steel grades	Multirun									
		L-61	L-50M (LNS 133U)			LNS 164 (LA 84)		LNS 165 (LA 85)		LNS 140A (L 70)	
		AW	AW	SR	AW	SR	AW	SR	AW	SR	
<b>Ship plates</b>											
	A to E	✓	✓	✓							
	AH[32],DH[36], EH[36]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>General structural steels</b>											
EN 10025 part 2	S185, S235, S275	✓	✓	✓							
	S355	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Cast steels</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>Fine grained steels</b>											
EN 10025 part 3/part 4	S275	✓	✓	✓							
	S355	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	S420		✓		✓	✓	✓	✓	✓	✓	
	S460				✓	✓	✓	✓	✓		
	S500				✓	✓	✓				

## FLUX CHARACTERISTICS

Current type	DC/AC
Basicity (Boniszewski)	2.3
Solidification speed	Medium
Density (kg/dm <sup>3</sup> )	1.3
Grain size (ISO 14174)	2 - 20

## SUGGESTIONS FOR USE

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

## PACKAGING AND AVAILABLE SIZES

Unit	Net weight (kg)
Plastic pail	22.7