

782 / 782-FG

CLASSIFICATION

Flux	Flux/wire			
ISO 14174 S A AR/AB 176 AC H5	782 / L-60	AWS A5.17 / A5.23	ISO 14171-A : MR	ISO 14171-A : TR
	782 / LNS 135	F7AZ-EM12	S 42 A AR/AB S1	S 4T A AR/AB S1
	782 / L-61	F7AZ-EM12K	S 46 0 AR/AB S2Si	S 4T 0 AR/AB S2
	782 / L-50M (LNS133U)		S 46 0 AR/AB S3Si	S 4T 0 AR/AB S2Si
	761 / LNS 140A (L-70)		S 46 0 AR/AB S2Mo	S 5T 2 AR/AB S3Si
				S 5T 2 AR/AB S2Mo

GENERAL DESCRIPTION

Active flux for limited pass welding

Good bead shape with optimum wetting

High speed on thin plates

Single & multi-wire welding; butt and fillet welds

Optimal flux for tin-tube welding, especially with the fine grain formulation

APPROVALS

Wire grade	BV	ABS	DNV	RINA	TÜV
L-50M (LNS 133U)	3Y40T	3Y400T	4Y40T	3Y40T	
LNS 135					✓

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

Wire grade	C	Mn	Si	P	S	Mo
L-60	0.07	1.0	0.6	<0.03	<0.025	
LNS 135	0.07	1.15	0.7	<0.03	<0.025	
L-61	0.07	1.15	0.8	<0.03	<0.025	
L-50M (LNS 133U)	0.06	1.7	1.0	<0.03	<0.025	
LNS 140A (L-70)	0.07	1.2	0.7	<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)	Impact ISO-V(J)	
				0°C	-20°C
L-60	TR	>420	>520	45	
LNS 135	TR	>420	>520	55	
L-61	TR	>420	>520	60	
L-50M (LNS 133U)	TR	>460	>550	65	50
LNS 140A (L-70)	TR	>460	>600	70	50

* MR : Multirun - TR : Two-run

782/782-FG; rev. C-EN25-01/02/16

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EXAMPLES OF MATERIALS TO BE WELDED

Code	Type / Steel grades	Limited passes	
		LNS 135	L-61
Ship plates			
	A, AH32 to AH40		✓
General structural steels			
EN 10149	S315 to S460 MC	✓	✓
EN 10025 part 2	S185 to S355 quality, JR(G1&G2)	✓	✓
	S185 to S355 quality, JR(G1&G2), J10		✓
	E2956 to E360	✓	✓
Boiler & pressure vessel steels			
EN 10028	P235 to 275 GH		✓
	P355 to P460M		✓
A36-601 & NF A36-605	A37 to A52 (CP)		✓

FLUX CHARACTERISTICS

Current type	DC / AC
Basicity (Boniszewski)	0.4
Solidification speed	High
Density (kg/dm ³)	1.4
Grain size (ISO 14174)	782 : 1 - 20 / 782-FG : 1 - 16

SUGGESTIONS FOR USE

Wire	Characteristics
LNS 135	Limited hardness
L-61	Good properties
L-50M (LNS 133U)	Very high speeds

Applications

- Fillet weld, lap joint
- truck wheels
- gas bottles
- Tube to fin fillet weld
- Boiler tubes

PACKAGING AND AVAILABLE SIZES

Unit	Net weight (kg)
Bag	25
Metal drum	250
Big Bag	500 / 1000