

Flux (Pipemill)

Classification

Flux 998N	EN 760 :	S A AB 1 67 AC H5
Flux/Wire	AWS A5.23	EN 756 : TR
998N / LNS 140A		S 4T 2 AB S2Mo
998N / LNS 140TB (LA 81)	F9A2-EG-G	S 5T 5 AB Sz

General description

Flux designed for longitudinal multi-arc welding pipemill station

High end pipemill applications up to X80

Superior resistance to undercuts on thin metal sheet work at high speed

Designed to operate on all the range of pipe thickness (6 to 50 mm)

Nitrogen controlled weld metal providing good impact toughness on arctic grade pipes

Superior resistance to surface defects

Very low diffusible hydrogen level in the weld deposit

Chemical composition (w%)

Base material	Wire grade	C	Mn	Si	P	S	Mo	Ti	B	N
X65	LNS 140TB (LA 81)	0.067/0.076	1.41/1.51	0.28/0.34	0.017/0.020	0.003/0.004	0.22/0.27	0.024/0.034	0.0028/0.0036	0.005/0.01
X80	LNS 140TB (LA 81)	0.045/0.06	1.6/1.64	0.35/0.4	0.016/0.017	0.004/0.005	0.3/0.35	0.031/0.034	0.0029/0.0032	0.005/0.006

AW : As welded

Remark: the chemical composition from butt welds in pipe depends on the chemical composition of base material.

Proced1: triple arc application on X65 plate 15,9 mm thick; Proced2: tandem applications on X80 plate 12,7mm thick

Mechanical properties, typical, all weld metal

Wire grade	Condition	Yield strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J)				Hardness HV30
					-20°C	-40°C	-50°C	-60°C	
Proced. 1									
LNS 140A (L-70)	AW	570	680	27					230
LNS 140TB (LA81)	AW	610	700	27	115	75	50		235
Proced. 2									
LNS 140TB (LA81)	AW	640	730	24	160	120	90	70	220-235

AW : As welded

Remark: the mechanical properties from butt welds in pipe depends on the chemical composition of base material.

Proced1: tandem in 12,5mm X65; Proced2: multiwire weld (4/5 wires) in 19-25mm X65

998N: rev. EN 22

Materials to be welded

STEEL / STANDARD	TYPE	Two-run	
		LNS 140TB	LNS140A (L-70)
Ship plates			
A, B, D, E	A to E	x	x
	A 32 to FH40	x	x
General Structural steel			
EN 10025 part 6	500 to 550 A & AL	x	x
EN 10025 part 3/part 4	S275 to S460 all qualities	x	x
EN 10149	S315 to S650 all qualities	x	x
EN 10025 part 2	S185 to S355 all qualities	x	x
	E295 to E360	x	x
Boiler & pressure vessel steel			
EN 10028	P235 to P460G all qualities	x	x
	P235 to P275		x
	A37 to A52 all qualities	x	x
	PF24 to PF36 all qualities	x	x
	P265 to P460 all qualities	x	x
	A37 to A52, CP	x	x
	X42 to X70	x	x
	X42 to X80	x	

Flux characteristics

Current type	DC (+, -) / AC
Basicity (Boniszewski)	1,3
Solidification speed	fast
Density (kg/dm ³)	1,3
Grain size	2-20

Packaging and available sizes

Unit	Net weight (kg)
Bag	25
Sahara ReadyBag™ (SRB)	25
Big Bag	500
Big Bag	600