Flux

Classification

Flux P7000	EN 760-96:	S A AB/AR 2 69 AC H5
Wire	AWS 5.9 / 5.14	EN 12072 /EN xx:
P7000 / LNS 4439 Mn		S-18 16 5 L
P7000 / LNS 4455		S-20 16 3 Mn L
P7000 / LNS 4465		S-25 22 2 L
P7000 / LNS 4500	ER 385 L	S-20 25 5 Cu L
P7000 / LNS NiCro 31/27		
P7000 / LNS NiCro 70/19	NiCr-3	R-NiCr 20 Nb
P7000 / LNS NiCro 60/20	NiCrMo-3	R-NiCr 21 Mo 9 Nb

General description

Agglomerated aluminate basic welding flux which increases the Mn content of the weld metal
- for full austenitic stainless steel grades,
- suitable for Ni-based alloys in multi run butt welding (Alloy 625)
- for welding low Ni-alloyed structural steels (12Ni14, 12Ni19, X8Ni9)
- resistance to hot cracking

Approvals

Wire grade	TUV
LNS NiCro 60/20	+

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

Wire grade	C	Mn	Si	Cr	Ni	Mo	N_	Nb	Fe
LNS4455	0.02	7.5	0.6	19	16	2.7	0.13		bal.
LNS4465	0.02	6	0.6	25	23	2	0.12		bal.
LNS4500	0.02	3	0.6	20	25	4.5			bal.
LNS NiCro 31/27	0.02	2.7	0.4	27	31	3.5			bal.
LNS NiCro 70/19	0.025	4.8	0.45	19	bal.			2.5	1.2
LNS NiCro 60/20	0.01	2	0.3	21	bal.	8.5		4	6

Mechanical properties, all weld metal

Wire grade	Condition	Yield strength (N/mm^2)	Tensile strength (N/mm^2)	Elongation %	Impact ISO-V(J) -100 °C	-196 °C	
LNS4455	AW	420	620	30		40	
	SR	420	610	30		40	
LNS NiCro 60/20	AW	450	740	40	90	90	

Suggestions for use

Good slag release
AC/DC welding and for multi wire systems
Heat input max. 12 KJ/cm
Interpass temperature max. 150°C
Redrying: 2h / ~ 375°C

Materials to be welded

AISI	Mat.nr.	EN	UNS
317L	1.4438	X2 CrNiMo 18-15-4	
317LN	1.4439	X2 CrNiMoN 17 13 5	
	1.4455		
	1.4465		
904L	1.4539	X1 NiCrMoCu 25-20-5	N08904
	1.4563	X1 NiCrMoCu 31-27-4	N08028
Alloy 254		X4 CrNi 18-10	S31254
Alloy 625	2.4856	NiCr 22 Mo 9 Nb	N06625
Special	1.5637	12 Ni 14	
	1.5680	12 Ni 19	
	1.5662	X8 Ni 9	

Flux characteristics

Max current, one wire (A)	700
Currrent type	AC, DC +
Basicity (Boniszewski)	2.5
Solidification speed	high
Density (kg/dm3)	1.1
Grain	2 - 20

Packaging

Unit	Net weight (kg)
Drum	40