



AMA AP 720

Standards: EN 760
DIN 32 522

SA FB 2 55AC
B FB 6 55455 AC 8 MHP 5

Type/ Characteristics: Special agglomerated fluoride-basic type flux for welding austenitic stainless steels in combination with wire electrode according to DIN 8556. As to carbon content of the weld metal, AMA AP 720 is strictly neutral, so that, using suitable wire electrodes steels having extra low carbon content can be safely welded. It has no chromium compensation which is of importance if certain ferrite content in the weld deposit must be observed. Its metallurgical behavior as regards silicon and Manganese burn off will take place when using wire electrodes having a high Manganese content. AMA AP 720 is designed for welding thick sections.

It is a hydrogen controlled flux deposition low hydrogen weld metal.

AMA AP 720 is particularly suited to be used in tandem and multi-wire welding.

It produces smooth and finely rippled weld beads merging into the base metal without undercut.

AMA AP 720 can be used on DC (positive) or AC up to 800 C.

Damp flux shall be redried by backing at 300-350 C.

Grain size according to DIN 32 522:2-20.

Main constituents:

SiO ₂ + TiO ₂	CaO + MgO	Al ₂ O ₃ + MnO	CaF ₂
15%	40%	20%	25%

Basicity as to boniszewski ~2.7

All -Weld metal analysis (typical values):

With Wire electrode	Weight-%						
	AWS	C	Cr	Ni	Mo	Nb	N
30-51 ER308L	< 0.03	> 18	> 9	-	-	-	-
30-52 ER347	< 0.07	> 18	> 9	-	> 8xC	-	-
30-53 ER316L	< 0.03	> 18	> 10	2.5	-	-	-
30-54 ER318	< 0.07	> 18	> 10	2.5	> 8xC	-	-
30-56	< 0.03	20	16	3.0	-	0.15	-
30-55	< 0.03	23	9	3.0	-	0.15	-
30-57	< 0.15	22	12	-	-	-	-
30-58	< 0.03	21	> 60	9.0	3.5	-	-

Mechanical properties of all -weld metal (typical values)

With Wire electrode	Proof stress	Proof stress	Tensile Strength	Elongation	Impact energy (J)
	(N/mm ²) 0.2%	(N/mm ²) 1%	(N/mm ²)	Lo = 5d %	(Joule) ISO - V +20°C
30-51	> 320	> 350	> 550	> 35	> 75
30-52	> 350	> 370	> 575	> 30	> 65
30-53	> 320	> 350	> 550	> 30	> 75
30-54	> 350	> 370	> 600	> 30	> 65
30-56	> 380	> 410	> 600	> 30	> 120
30-55	> 450	> 500	> 650	> 25	> 100
30-57	> 320	> 350	> 650	> 30	> 75
30-58	> 400	> 420	> 680	> 30	> 75



Application: welding of austenitic stainless Cr Ni steel, particularly thick sections.

Materials	Material-No	With wire electrode	Material-No
X 2 Cr Ni 1911	1.4306	30-51	1.4316
X 5 Cr Ni 1810	1.4301	30-51	1.4316
X 6 Cr Ni Ti 1810	1.4541	30-52	1.4551
X 5 Cr Ni Nb 189	1.4543	30-52	1.4551
X 6 Cr Ni Nb 1810	1.4550	30-52	1.4551
X 12 Cr Ni Ti 189	1.4878	30-52	1.4551
X 2 Cr Ni Mo 17132	1.4404	30-53	1.4430
X 2 Cr Ni Mo 18142	1.4435	30-53	1.4430
X 5 Cr Ni Mo 17122	1.4401	30-53	1.4430
X 6 Cr Ni Mo Ti 17122	1.4571	30-54	1.4576
X 10 Cr Ni Mo Ti 1812	1.4573	30-54	1.4576
X 6 Cr Ni Mo Nb 17122	1.4580	30-54	1.4576
X 10 Cr Ni Mo Nb 18 12	1.4583	30-54	1.4576
X 2 Cr Ni Mo N 22 5	1.4462	30-55	~1.4462
X 15 Cr Ni Si 20 12	1.4828	30-57	1.4829
X 12 Cr Ni Ti 18 9	1.4878	30-57	1.4828
X 2 Cr Ni 18 9	1.4306	30-56*	1.4455
X 5 Cr Ni 18 10	1.4301	30-56*	1.4455
X 6 Cr Ni Ti 18 10	1.4541	30-56*	1.4455
X 5 Cr Ni Nb 18 9	1.4543	30-56*	1.4455
X 6 Cr Ni Nb 18 19	1.4550	30-56*	1.4455
X 12 Cr Ni Ti 18 9	1.4878	30-56*	1.4455
X 2 Cr Ni Mo 17 13 2	1.4404	30-56*	1.4455
X 2 Cr Ni Mo 18 14 2	1.4435	30-56*	1.4455
X 5 Cr Ni Mo 17 12 2	1.4401	30-56*	1.4455
X 6 Cr Ni Mo Ti 17 12 2	1.4571	30-56*	1.4455
X 10 Cr Ni Ti Mo 18 12	1.4573	30-56*	1.4455
X 6 Cr Ni Mo Nb 17 12 2	1.4580	30-56*	1.4455
X 10 Cr Ni Mo Nb 18 12	1.4583	30-56*	1.4455

*) If weld metal is required to be fully austenitic

Materials	Material-No	With wire electrode	Material-No
X 8 Ni 9	1.5662	30-56	1.4455
10 Ni 14	1.5637	30-56	1.4455
12 Ni 19	1.5680	30-56	1.4455

AMA AP 720+ 30-56 is out standing for joining unalloyed and low alloy steels to high alloy steels.