

Classifications

SAW solid wire:		SAW flux:
EN ISO 18274	AWS A5.14	EN ISO 14174
S Ni 6617 (NiCr22Co12Mo9)	ERNiCrCoMo-1	SA FB 2 AC

Characteristics and typical fields of application

For SAW wire flux combination for joining high-temperature and similar nickel-base alloys, heat resistant austenitic and cast alloys, such as 2.4663 (NiCr21Co12Mo), 2.4851 (NiCr23Fe), 1.4876 (X10 NiCrAlTi 32 20), 1.4859 (GX 10 NiCrNb 32 20). The weld metal is resistant to hot-cracking and is used for service temperatures up to +1100 °C. Scale-resistance up to +1100 °C, high temperature resistant up to 1000 °C. High resistance to hot gases in oxidizing and carburized atmospheres, e.g. gas turbines, ethylene production plants. BB 444 is an agglomerated fluoride basic welding flux with high basic slag characteristics. For information regarding the sub-arc welding flux BB 444 see our detailed data sheet.

Base materials

X10NiCrAlTi32-20 (1.4876)
NiCr23Fe (2.4851)
GX10NiCrNb32-20 (1.4859)
NiCr23Co12Mo (2.4663)
Alloy 617, UNS N06617

Typical analysis of the wire and of all-weld metal (wt.-%)

	C	Si	Mn	Cr	Mo	Ni	Ti	Co	Al	Fe
SAW wire wt.-%	0.06	< 0.2	< 0.2	21.7	9.0	Bal.	+	11.0	1.3	< 1.0
all-weld metal %	0.06	< 0.4	< 0.3	21.2	9.0	Bal.	+	10.6	1.1	< 1.0

Mechanical properties of all-weld metal

Condition	Yield strength R _{p0,2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
u	≥ 420	≥ 700	≥ 35	≥ 80

u untreated, as welded

Operating data

	Polarity: DC (+) / DC (-) / AC	Redrying of sub arc flux: 400 – 450 °C/2 h	ø (mm) 2.0
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