

Classifications

EN ISO 14174

S A FB 2 AC

Characteristics and typical fields of application

Marathon 104 is an agglomerated fluoride-basic flux for submerged arc welding of stainless / heat resistant steel grades and Ni-base alloys. This flux is recommended for highest demands on crack resistance and the mechanical properties of the weld metal, especially with heavy wall thickness. Combined with stainless wire grades it provides a high degree of purity in the weld metal, with good mechanical properties and good corrosion resistance. Marathon 104 is non-chrome compensating. Its metallurgical behavior, with respect to; carbon, silicon and manganese is neutral. Good slag detachability and excellent bead appearance. The weld metal is characterized by good mechanical properties, high resistance to hot cracking, and is recommended for demanding applications, e.g. creep resistance (Thermanit ATS), non-magnetic and cryogenic applications (particularly for LNG applications with Thermanit Nimo C 276).

Flux properties

Polarity	DC+ / AC
Basicity index (Boniszewski)	2.8 (wt%) ; 3.8 (mol)
Grain size (EN ISO 14174)	3 – 20 (0.3 – 2.0 mm)
Apparent density	1.0 kg/dm ³
Redrying	570 – 660°F for 2 – 10 h

Composition of sub-arc welding flux

	CaF ₂	SiO ₂	CaF ₂ +CaO+MgO
wt. %	23	14	65