

## Classifications

<b>EN ISO 14174</b>	<b>EN ISO 14343-A</b>	<b>AWS A5.9 / SFA-5.9</b>
S A FB 2 DC	S 16 5 1	-

## Characteristics and typical fields of application

**Thermanit 16/05 Mo – Marathon 203** is a wire/flux combination for submerged arc welding with an austenitic-ferritic-martensitic weld metal deposit.

Solid wire of S 16 5 1 type for welding and repair of propellers, pumps, valves and shafts in 248 SV / 420 and similar types of steels and castings where it provides a relative low crack sensitivity compared to many other martensitic weld metals. The properties of the weld are largely the same as those of the parent metal. The general and pitting corrosion resistance corresponds to that of the base material 1.4301 / 304. Former product name for the SAW wire was "Avesta 248 SV".

**Marathon 203** is an agglomerated basic flux with relative high basicity index, however with good welding properties with nice bead appearance and good slag detachability. For more information regarding this sub-arc welding flux, see the separate datasheet. The former product name of the SAW flux was "BÖHLER BB 203".

## Base materials

1.4028 X30Cr13, 1.4405 GX4CrNiMo16-5-1, 1.4418 X4CrNiMo16-5-1  
AISI 420  
248 SV

## Typical analysis

wt.-%	C	Si	Mn	Cr	Ni	Mo
wire	0.02	0.35	1.3	16.0	5.5	1.0
all-weld metal	0.02	0.50	1.1	15.6	5.0	1.0

## Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength $R_{p0.2}$	Tensile strength $R_m$	Elongation A ( $L_0=5d_0$ )	Impact energy ISO-V KV J
	MPa	MPa	%	20°C
a1	550 ( $\geq 400$ )	880 ( $\geq 600$ )	16	40

a1 590°C for 4 h

## Operating data

	Dimension mm	Current A	Voltage V
		3.2	350-500

## Approvals

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