

Classifications

EN ISO 17634-A	EN ISO 17634-B	AWS A5.29 / SFA-5.29
T CrMo2 P M21 1 H10	T 62 T1-1M2C1M-H10	E91T1-B3M-H8

Characteristics and typical fields of application

The welding consumable FOXcore CM 2 RC is a low alloyed, flux-cored wire with rutile filling, primarily designed for the welding of 2.25% Cr and 1% Mo alloyed creep-resistant base metals (e.g. 10CrMo9-10), that are used for the fabrication of high-pressure vessels and pipe systems.

Due to the fast freezing slag system this flux-cored wire provides excellent positional welding characteristics and allows fast travel speeds to be used. This flux-cored wire is for welding with normal power sources on DCEP under Mixture gas (82% Ar + 18% CO₂).

Base materials

Creep resistant steels and similar alloyed cast steels, similar alloyed case hardening steels up to 980 MPa tensile strength, nitriding steels

1.7380 10CrMo9-10, 1.7276 10CrMo11, 1.7281 16CrMo9-3, 1.7383 11CrMo9-10, 1.7379 G17CrMo9-10, 1.7382 G19CrMo9-10; ASTM A 182 Gr. F22; A 213 Gr. T22; A 234 Gr. WP22; 335 Gr. P22; A 336 Gr. F22; A 426 Gr. CP22;

Typical analysis

	Gas	C	Si	Mn	Cr	Mo	P	Sb	Sn	As
wt.-%	M21	0.08	0.25	0.8	2.25	1.1	< 0.005	<0.005	<0.005	<0.005


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
s	600 (≥ 540)	700 (≥ 620 – 760)	19 (≥ 18)	70 (≥ 47)
s1	650 (≥ 540)	730 (≥ 620 – 760)	19 (≥ 18)	50 (≥ 47)

s stress relieved, 720°C/2 h – shielding gas Ar + 18% CO₂

s1 stress relieved, 690°C/1 h – shielding gas Ar + 18% CO₂

Operating data

	Polarity	DC +	Dimension mm
	Redrying	possible, 150°C / 10 h	1.2
	Shielding gas (EN ISO 14175)	M21	

Welding with standard GMAW power source with DC+ polarity.

Approvals

TÜV (11812), CE