FOXcore DMO RC

Flux-cored wire, low-alloyed, creep resistant

Classifications

EN ISO 17634-A	EN ISO 17634-B	AWS A5.29 / SFA-5.29	AWS A5.36 / SFA-5.36
T MoL P M21 1 H10	T 55 T1-1M21-2M3-H10	E81T1-A1M-H8	E81T1-M21PY-A1-H8

Characteristics and typical fields of application

Rutile flux-cored wire which provides easy all-position weld ability, primarily designed for the welding of 0,5% Mo alloyed base metals, that are used for the fabrication of vessels, high-pressure storage tanks, pipe systems as well as for structural steel applications.
Due to the fast freezing slag system this flux-cored wire provides excellent positional welding characteristics and allows fast travel speeds to be used. It can be operated in spray arc mode in all positions and offers a controllable spatter free arc. Easy slag detachability with smooth, good profile, clean weld beads are further features of this wire.

Base materials

Creep resistant steels and similar alloyed cast steels,
16Mo3, S235JR-S355JR, P195TR1-P265TR1, L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE300
ASTM A 29 Gr, 1016; A 106 Gr. A, B; A 182 Gr. F1; A 234 Gr. WP1; A 283 Gr., C, D; A 335 Gr. P1; A 501 Gr. B; A 510 Gr. 1013; A 512 Gr. 1021, 1026;
A 513 Gr. 1021, 1026; A 711 Gr. 1013; API 5 LB, X42, X52, X60, X65;

Typical analysis

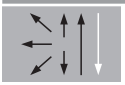
	Gas	C	Si	Mn	Mo
wt.-%	M21	0.04	0.25	0.75	0.5

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
u	540 (≥ 470)	600 (550 – 690)	23 (≥ 22)	120 (≥ 47)
s	510 (≥ 470)	570 (550 – 690)	23 (≥ 22)	140 (≥ 47)

u untreated, as welded – shielding gas Ar + 18% CO_2
s stress relieved, 620°C/1h / furnace down to 300°C / air – shielding gas Ar + 18% CO_2

Operating data



Polarity	DC +	**Dimension mm**
Redrying	if necessary 150°C/24 h	1.2
Shielding gas (EN ISO 14175)	M21	

When using 100% CO_2 lower tensile properties can be expected.
Preheating, interpass temperature and post weld heat treatment as required by the base metal. For heavy walled components preheating to a min. 150ºC is recommended.
Slightly trailing torch position (angel appr. 80º), slight weaving is recommended for positional welding Final PWHT should be carried out between 600ºC and 630ºC for a minimum of 1 hour.

Approvals

TÜV (11120), DB (42.014.61), CE