BÖHLER DCMS Ti-FD

Flux cored wire, low-alloyed, high temperatur

Classifications

EN ISO 17634-A	EN ISO 17634-B	AWS A5.36	AWS A5.36M
(T CrMo1 P M 1 H10)	T55T1-1M-1CM-H10	E81T1-M21PY-B2H8	E551T1-M21PY-B2H8

Characteristics and typical fields of application

The welding consumable Böhler DCMS Ti-FD is a low alloyed, flux-cored wire with rutile filling, primarily designed for the welding of 1 % Cr and 0,5 % Mo alloyed creep-resistant base metals, 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 DCRP under Mixture gas (82 % Ar+18 % CO_2).

Base materials

High temperature steels and similar alloyed cast steels, case hardening and nitriding steels of similar chemical composition, similar alloyed heat treatable steels with tensile strength up to 780 MPa, steels resistant to caustic cracking

1.7335 13CrMo4-5, 1.7262 15CrMo5, 1.7728 16CrMoV4, 1.7218 25CrMo4, 1.7225 42CrMo4, 1.7258 24CrMo5, 1.7354 G22CrMo5-4, 1.7357 G17CrMo5-5

ASTM A 182 Gr. F12; A 193 Gr. B7; A 213 Gr. T12; A 217 Gr. WC6; A 234 Gr. WP11; A335 Gr. P11, P12; A 336 Gr. F11, F12; A 426 Gr. CP12

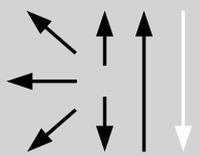## Typical analysis of all weld metal (wt.-%)

	C	Si	Mn	Cr	Mo	P	As	Sn	Sb
wt-%	0.06	0.22	0.75	1.2	0.47	< 0.015	< 0.005	< 0.005	< 0.005

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
a	≥ 460	550 – 740	≥ 20	≥ 47

a   annealed, 690 °C / 1h – shielding gas Ar + 18 % CO_2

Operating data

	Polarity: DC (+)	Shielding gas: Argon + 15 – 25 % CO_2	Re-drying: possible, 150 °C / 24 h	ø (mm) 1.2	Amps A 150 – 330	Voltage V 23 - 37

Preheating, interpass temperature and post weld heat treatment as required by the base metal.

Approvals

TÜV (11162.), CE

All information provided is based upon careful investigation and intensive research.
However, we do not assume any liability for correctness and information is subject to change without notice.

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