BÖHLER Ti 52 T-FD (CO_2) (diamondspark 46 RC (C1))

böhler welding by voestalpine

Flux cored wire, seamless, unalloyed, rutile type

Classifications

EN ISO 17632-A	EN ISO 17632-B	AWS A5.36	AWS A5.36M
T46 3 P C1 1 H5	T553T1-1C1A-H5	E71T1-C1A2-CS1-H4	E491T1-C1A3-CS1-H4

Characteristics and typical fields of application

Seamless rutile flux cored wire for single- or multilayer welding of Carbon, Carbon-Manganese steels and similar types of steels including fine grain steels with pure CO2 shielding gas.
Main features: excellent weldability in all positions especially vertical upward position, also with high parameters (300 A), very low spatter losses, fast freezing, easy to remove slag and smooth and bright bead. This wire is especially suitable for ship building where excellent performance and welding speed are needed.

Base materials

S235JR-S355JR, S235JO-S355JO, S450JO, S235J2-S355J2, S275N-S460N, S275M-S460M, P235GH-P355GH, P355N, P285NH-P460NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE240

Ship building steels: A, B, D, E, A 32-E 36

ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, C; A 285 Gr. A, B, C;
A 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 513 Gr. 1018; A 516 Gr. 55, 60, 65, 70;
A 573 Gr. 58, 65, 70; A 588 Gr. A, B; A 633 Gr. C, E; A 662 Gr. B; A 711 Gr. 1013; A 841 Gr. A;
API 5 L Gr. B, X42, X52, X56, X60, X65

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

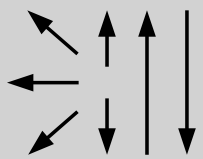
	Gas	C	Si	Mn
wt-%	C1	0.065	0.45	1.3

Mechanical properties of all-weld metal

Condition	Yield strength R_e	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J		
	MPa	MPa	%	+20°C	-20°C	-30°C
u	**520** (≥460)	**580** (550–660)	**25** (≥20)	**100**	**95**	**70** (≥47)

u untreated, as welded – shielding gas C1

Operating data



Polarity:	Shielding gas:	ø (mm)
DC (+)	(EN ISO 14175) C1	1.0
		1.2
		1.4
		1.6

Welding with standard GMAW power source possible

Approvals

TÜV(12573), DB(42.014.45), GL(3YH5S), DNV(3YMS(H5)), ABS(3YSAH5), LR, BV(SA3YM), RINA(3YSH5), RS(3Y40MSH5), CE