BÖHLER Ti 52 T-FD (diamondspark 52 RC)

Flux cored wire, seamless, unalloyed, rutile type

Classifications

EN ISO 17632-A	EN ISO 17632-B	AWS A5.36	AWS A5.36M
T46 4 P M21 1 H5	T554T1-1M21A-H5	E71T1-M21A4-CS1-DH4	E491T1-M21A4-CS1-DH4
T46 2 P C1 1 H5	T552T1-1C1A-H5	E71T1-C1A2-CS1-DH4	E491T1-C1A3-CS1-DH4

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 Argon-CO_2 shielding gas or pure CO_2. Main features: excellent weldability in all positions with high performance welding speed, very low spatter losses, good bead appearance, fast freezing and easy to remove slag. This wire is especially suitable for ship building, structural steel work or wherever good bead appearance is required. D1.8 Seismic Supplement approved. This product can be used in sour gas applications. (HIC tested acc. to NACE TM-0284). Test values for SSC are available upon request.

Typical hydrogen value 2.5 – 3.5ml/100g weld metal.

Base materials

S235JR-S355JR, S235JO-S355JO, S450JO, S235J2-S355J2, S275N-S460N, S275M-S460M, P235GH-P355GH, P275NL1-P460NL1, P215NL, P265NL, 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 350 Gr. LF1; 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.-%)

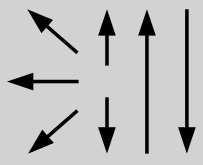
	Gas	C	Si	Mn
wt-%	M21	0.06	0.40	1.45
wt-%	C1	0.04	0.35	1.25

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	-40°C
u	**500** (≥460)	**590** (550–660)	**26** (≥20)	**100**(≥47)	**70** (≥47)
u1	**470** (≥460)	**560** (550–660)	**28** (≥20)	**80** (≥47)	

u untreated, as welded – shielding gas M21
u1 untreated, as welded – shielding gas C1

Operating data



Polarity:	Shielding gases:	ø (mm)
DC (+)	(EN ISO 14175) M21 – M35; C1	1.0
Rebacking:		1.2
Not necessary when following the recommended storage conditions	Argon + 15-25%CO_2	1.3
	or 100% CO_2	1.4
		1.6

Welding with standard GMAW power source possible

Approvals

TÜV, DB, DNV-GL, ABS, LR, BV, RINA, RS, CE; CWB, D1.8 Seismic Supplement;