Flux cored wires, unalloyed

Brand Standard AWS Standard EN ISO	Chemical Composition (%) Typical Values	Mechanical Properties Typical Values	Ø (mm)	Approvals	Characteristics and Applications
BOHLER N Ti 71-T1C AWS A5.20: E71T-1C AWS A5.36: E71T1-C1A2-CS1-H8 EN ISO 17632-A: T 42 2 PC1 H10	C: 0.04 Si: 0.40 Mn: 1.25 S: 0.03 max P: 0.03 max	Heat treatment: As welded Shielding gas: CO_2 UTS: 580 MPa YS: 520 MPa El: 27% CVN impact: -20°C: 110J Heat treatment: 620°C, 2h Shielding gas: CO_2 UTS: 570 MPa YS: 490 MPa El: 28% CVN impact: -20°C: 116J	1.2 1.6	IBR, ABS, DNV, LRS, IRS	BOHLER N Ti 71-T1C is a rutile flux cored wire with fast freezing slag. Excellent welding characteristics in all positions. Very good mechanical properties, easy slag detachability, low spatter level, smooth and well shaped beads with X-ray quality. Applicable in out of position welding, with higher productivity and less time needed for postweld cleaning. Suitable for butt and fillet welding of hulls, storage tanks, mechanical and constructional steel structures and bridges.
BOHLER Q 71 RC (C1) AWS A5.20 E71T-1C-H8 EN ISO 17632 – A T 42 2 PC1 H10	C: 0.04 Si: 0.40 Mn: 1.25 S: 0.015 P: 0.020	Heat treatment: As welded UTS: 570 MPa YS: 490 MPa El: 27% CVN Impact: -20°C: 90J	1.20	IRS , ABS, IBR and CE (Under Process)	BOHLER Q 71 RC (C1) is Rutile flux cored wire specially designed for positional welding including out of position welding. Weldability characterized by fast freezing slag, less spatter, fine droplet transfer at low & high welding parameters enables easy slag removal; very less post weld cleaning operation produces X-Ray quality weld deposit. It gives excellent mechanical properties and is suitable for welding of hulls, storage tanks, bridges, water wall panels, structures and constructional steels.
BOHLER Ti 71-T1M AWS A5.36: E71T1-M21A0-CS1 EN ISO 17632-A: T42 2 P M 1 H10	C: Max. 0.12 Si: Max. 0.9 Mn: Max. 1.75 S: Max. 0.03 P: Max. 0.03	Heat treatment: As welded Shielding Gas: 75-80%Ar+bal CO_2 UTS: 490-670 MPa YS: ≥390 MPa El: ≥22% CVN Impact: -20°C: ≥27J	1.2 1.6	BV	BOHLER Ti 71-T1M is a rutile flux cored wire with fast freezing slag. Excellent welding characteristics in all positions with X-ray-quality. Very good mechanical properties, easy slag removability, low spatter level, smooth and well shaped beads. Applicable in out of position welding, with higher productivity and less time needed for postweld cleaning. Suitable for butt and fillet welding of hulls, storage tanks, mechanical and constructional steel structures and bridges.
BOHLER Ti 71-T9C AWS A5.20: E71T-9C-J AWS A5.36: E71T1-C1A4-CS1-H4	C: Max. 0.12 Si: Max. 0.9 Mn: Max. 1.75 P: Max. 0.03 S: Max. 0.03 Ni: Max. 0.50	Heat treatment: As welded Shielding Gas: CO_2 UTS: 490 - 670 MPa YS: 420 MPa El: 22% CVN Impact: -40°C: 100J	1.2 1.6	ABS, DNV	BOHLER Ti 71-T9C is a rutile flux cored wire and designed for all position welding with excellent CVN impact proerties in as weldeded condition at -40°C. Excellent welding characteristics in all positions. Very good mechanical properties, easy slag removability, low spatter level, smooth and good weld beads. Applicable in out of position welding, with higher productivity and less time for postweld cleaning. Applicable for Single pass & multi passes weld. Suitable for Butt, fillet welding of 490 MPa class high strength steel and low temperature steel of structure such as ships, bridges, buildings and storage tanks etc.

Flux cored wires, unalloyed

Brand Standard AWS Standard EN ISO	Chemical Composition (%) Typical Values	Mechanical Properties Typical Values	Ø (mm)	Approvals	Characteristics and Applications
BOHLER Pipeshield 81 T8-FD AWS A5.29: E81T8-G EN ISO 17632-A: T 46 3 Z Y NO 1 H10	C: 0.04 Si : 0.25 Mn : 1.6 Ni : 2.25 Al : 0.9	Heat treatment: As welded UTS: 620 MPa (550 – 690) YS: 520 MPa (≥470) El: 27% (≥19) CVN Impact: -30°C: 150J -40°C : 140J (≥27)	2.0	-	Bohler Pipeshield 81 T8-FD is a self-shielded flux-cored wire and is especially developed for semi- automatic vertical down welding of pipelines. It is also suitable for welding of low alloyed steel constructions. This wire offers a fast freezing, easy removable slag and excellent welding characteristics in all positions. Bohler Pipeshield 81 T8-FD is designed to offer both good mechanical properties and high impact toughness at low temperatures. The outstanding benefi ts are especially accessible in the vertical down position for (hot pass) filler and cap layers. Due to the fluoride-basic filling the interpass temperature can be arranged similar to that of basic electrodes, we recommend 80 – 200°C. Bohler self-shielded flux-cored wire provide an easy handling for the welder due to a very tolerant stick out length and loss tendency to porosity also when welding with a longer arc length as a result of higher voltage.
DIAMONDSPARK 54 MC AWS A5.18: E70C-6M H4 E70C-6C H4 EN ISO 17632-A: T 46 6 M M21 1 H5 T 42 5 M C1 1 H5	Shielding gas M21 C: 0.07 Si: 0.75 Mn: 1.40	Heat treatment: As welded Shielding Gas: M21 UTS: 600 MPa (550-660) YS: 500 MPa (≥460) El: 29% (≥20) CVN Impact: -40°C: 120J -60°C: 80J (≥47)	1.0 1.2 1,4 1.6	TÜV, DB, DNV, ABS, LR, BV, RINA, CWB, CE	Seamless metal cored wire for single- or multilayer welding of Carbon, Carbon-Manganese and similar types of steels, including fine grain steels with Argon-CO2 or pure CO2 shielding gas. Features include: high yield, good weldability, excellent bead appearance, very low spatter losses and exceptional mechanical properties at low temperatures (-60°C) in as welded conditions as well with post weld heat treatment. This wire is especially suitable for automated-robotized applications and for root pass welding for piping and butt-joints. This product can be used in sour gas applications. (HIC tested acc. to NACE TM-0284).
BOHLER Q 70 MC AWS A5.36: E71T15-M21A4-CS1-H4 E71T15-M20A4-CS1-H4 EN ISO 17632-A: T 46 3 M M21 1 H5	C: 0.07 Si: 0.7 Mn: 1.5	Heat treatment: As welded Shielding Gas: Ar + 5-25% CO_2 UTS: 590 MPa (550 - 660) YS: 490 MPa (≥460) El: 25% (≥22) CVN Impact: -30°C: 90J (≥47) -40°C: 47J (≥27)	1.2 1.4 1.6	TÜV, DB, DNV, LR, BV, ABS, CWB, CE	Metal-cored all positional high-efficiency wire for semi-automatic and fully automatic joint welding of unalloyed and fine-grained constructional steels and service temperatures from -40°C (≥ 27J) to +450°C when using mixed gas M20 and M21 according to EN ISO 14175. Steady spray arc-like droplet transfer with minimal spatter formation from 200 A (1,2 mm); good penetration; high resistance to porosity; good wetting behaviour; ideal for horizontal and flat fillet welds. Compared to solid wires 20% higher productivity can be achieved. This wire is designed for minimum oxide residues permit the welding of multi passes with minimum needs for inter-run cleaning.