

# BÖHLER Q 71 RC

## RUTILE FLUX CORED WIRE

All-positional rutile flux cored wire for shipbuilding and general construction applications for welding of unalloyed steels using Argon-CO<sub>2</sub> or pure CO<sub>2</sub> shielding gas.

BÖHLER Q 71 RC from Böhler Welding offers a perfect welding wire for highest productivity to fabricators. It features user-friendly welding characteristics in all positions, with one diameter and same parameter settings. The BÖHLER Q 71 RC is characterized by highest productivity and provides significant savings in time and economical aspects when used for positional welding.

Additional features of this wire are excellent bead appearance, low amount of spatter and easy slag removal. In particular, at the lower parameter range and welding of very thin plates or during the root run with ceramic backing, the welding arc is still very stable and easy to control. This filler material allows fabricators to enter a new era in productive, high quality welding.


Product features	Product benefits	User benefits
» <b>Designed chemistry</b>	<ul style="list-style-type: none"> <li>» Excellent mechanical properties</li> <li>» Easy slag removal</li> <li>» Low spatter loss</li> <li>» Smooth, finely rippled bead surface</li> <li>» All positional welding</li> <li>» Can be use under mixed gas (Ar + 5-25%CO<sub>2</sub>) or with 100% CO<sub>2</sub> with fast freezing slag system</li> <li>» Can be used for steel grades up to yield strength of 460 MPa</li> </ul>	<ul style="list-style-type: none"> <li>» Less post weld cleaning</li> <li>» Flexibility to use different shielding gases</li> <li>» Easy Handling</li> <li>» Wide parameter box</li> </ul>
» <b>Productivity</b>	<ul style="list-style-type: none"> <li>» The product provides high welding speed as it offers a high deposition rate</li> </ul>	<ul style="list-style-type: none"> <li>» Significant savings in time and economical aspects</li> <li>» User friendly welding characteristics in all positions with one wire diameter and same parameter setting.</li> </ul>



### Typical applications

- » General steel construction
- » Shipbuilding

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Classifications		Operating data		
EN ISO 17632-A	AWS A5.36	Welding positions	Polarity	Shielding gas
T46 4 P M21 1 H10 T42 2 P C1 1 H5	E71T1-M21A4-CS1-H8 E71T1-C1A2-CS1-H4		DC+	M21-M20 C1

Typical chemical composition, all weld metal, wt. %			
Shielding gas	C	Si	Mn
M21	0.06	0.5	1.20
C1	0.05	0.45	1.10

Mechanical properties, all weld metal (single values typical)						
Shielding gas	Condition	Yield strength $R_{p0.2\%}$ MPa	Tensile strength $R_m$ MPa	Elongation A ( $L_0=5d_0$ ) %	CVN Impact toughness ISO-V KV J	
					-20 °C	-40 °C
M21-M20	As welded	500 ( $\geq 460$ )	580 (550 – 660)	26 ( $\geq 22$ )	130	90 ( $\geq 47$ )
C1	As welded	480 ( $\geq 420$ )	550 (500 – 640)	25 ( $\geq 22$ )	110 ( $\geq 47$ )	-

Steels to be welded		
EN	Shipbuilding steel	ASTM
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,	A, B, D, E, AH 27S-EH 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;

Approvals
TÜV, DB, ABS, LR, DNV GL, BV, CRS, CWB, CE

Overview spool types					
Plastic spool S200			Wire basket spool BS300		
	Precision layer wound Dimensions: Ø external 200 mm Ø internal 52 mm Width 47 mm	Available spool weight: 5 kg Available diameters: 1.2 mm		Precision layer wound Dimensions: Ø external 300 mm Ø internal 52 mm Width 100 mm	Available spool weight: 16 kg Available diameters: 1.2 mm 1.6 mm