



DAIKOFCW 1070P



CARBON STEELS
STRUCTURAL STEEL

DESCRIPTION

All position self-shielded flux cored wire for welding C and CMn steels

Self-shielded flux cored wire for single pass welding of C and C-Mn steels (up to a yield strength of 420 MPa). Self-shielded flux cored wires are often a substitute for stick electrodes for construction and other outdoor applications as they don't require an external shielding gas and weld faster than stick electrodes since the wires continually feed, allowing for greater productivity. Typical applications include ship building and steel structural work.

SPECIFICATIONS

ISO 17632-A	T 42 Z Z V N 1	AWS A5.20	E71T-G5
DIN	-	Werkstoff Number	-
Certifications	-	Shielding	Self shielded
Positions	PA, PB, PC, PD, PE, PF, PG	Current	DC+

ASME QUALIFICATIONS

F-No (QW432)	6
A-No (QW442)	1

FERRITE

F-No (QW432)	-
A-No (QW442)	-

PREN

F-No (QW432)	-
A-No (QW442)	-

HARDNESS

F-No (QW432)	-
A-No (QW442)	-

CHEM. COMP. %

	DEFAULT
C	0.26
Mn	0.9
P	0.016
S	0.014
Si	0.5

MECHANICAL PROPERTIES

	MIN	VARIANT
Tensile strength R_m MPa	490	580
Yield strength $R_{p0.2}$ MPa	420	450
Elongation A ($L_0=5d_0$) %	20	25
Impact Charpy ISO-V	-	-
Impact Charpy ISO-V	-	-

WELDING PARAMETERS

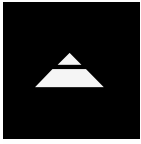
	1.2 mm	1.6 mm
Ampere	130A - 290A	170A - 400A
Voltage	18V - 30V	28V - 32V
Packaging	Ø 1,0÷1,6mm	Ø 1,0÷1,6mm
Packaging Type	BS300, D200 spools	BS300, D200 spools

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The information in this datasheet is the result of detailed research and is considered accurate as of the publication date. However, we cannot guarantee its complete accuracy, and it is subject to change without notice. Actual results may vary due to many factors like welding procedures, material composition, temperature conditions, bevel configuration, and specific manufacturing techniques. We accept no liability for any errors or omissions in this datasheet. For the most current information, please visit www.daikowelding.com.





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APPLICATION

Carbon-manganese (C-Mn) steels serve as the predominant structural steels extensively used across various applications in the engineering industry. Successful welding of C-Mn steel fabrications is generally achievable, provided the steel composition is known, necessary precautions are taken, and qualified procedures are adhered to. Weldability varies among C-Mn steels, with potential cracking mechanisms, including hydrogen cracking, solidification cracking, and reheat cracking, depending on specific circumstances. These consumables effectively resist such issues, emphasizing the importance of a meticulous welding procedure. While preheat and post-weld heat treatment (PWHT) may not be universally required, the actual specifications depend on the grade and thickness of the base material being welded. Attaining the required mechanical properties in a welded joint with C-Mn steels is achievable through the use of appropriate welding consumables. However, the intricate structural changes during the weld thermal cycle necessitate careful evaluation of properties such as heat-affected zone (HAZ) toughness and hardness.

ALLOY TYPE

Consumables for welding mild and C-Mn steels of 340-510MPa tensile strength.

MICROSTRUCTURE

Predominantly ferrite.

MATERIALS

EN W.Nr.: EN AW-Al 99,0 (1200), EN AW-Al 99,7 (1070A), EN AW-Al 99,5 (1050A), EN AW-Al 99,5 (1350), EN AW-Al 99,8 (1080A).

