

CEWELD Ultra Clean S3Si

TYPE Copper free solid wire for Submerged Arc (SAW) welding unalloyed and low-alloyed steels up to 460 MPa yield strength

APPLICATIONS CEWELD® Ultra Clean S3Si is ideally suited for pipe welding, offshore structures, pressure vessels, bridge construction, crane construction, equipment construction, and steam turbine structures, where consistent mechanical properties and reproducible weld quality are essential.

PROPERTIES CEWELD® Ultra Clean S3Si is a high-quality solid welding wire from the CEWELD® Ultra Clean family and offers lower friction and an improved corrosion resistant compared to copper coated wire. Due to the absence of copper Ultra Clean S3Si shows better performance when used with the multiwire and FMI process with lower impurities and a cleaner surface. CEWELD® Ultra Clean S3Si is best to be used with [FL155](#) or [FL188](#) basic agglomerated flux to obtain excellent impact properties down to -60°C and a yield strength exceeding 470 MPa.

CLASSIFICATION

AWS	A 5.17: EH12K
EN ISO	14171-A: S3Si
F-nr	6
FM	1

SUITABLE FOR Reh ≤ 460 MPa (67 ksi) ISO 15608: 1.2, 1.3, 2.1
1.5637, 1.6217, 1.6228, 1.0044-1.09821.0035 - 1.0570, 1.0345, 1.0425, 1.0481, 1.0308 - 1.0581, 1.0307 - 1.0582, 1.0440, 1.0472, 1.0475, 1.0416 to 1.0551
10Ni14, 12Ni14, 13MnNi6-3, 15NiMn6,
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, 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
Domex 315-460MC, MC Plus, ML

APPROVALS CE, TÜV: in progress, Lloyds: in progress, DNV: in progress

WELDING POSITIONS



TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%)

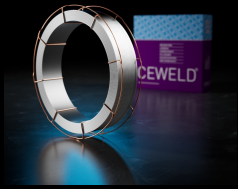
C	Si	Mn	P	S	Cu
0.1	0.35	1.75	0.015	0.015	0.029

MECHANICAL PROPERTIES

Heat Treatment	Rp0,2 (MPa)	Rm (MPa)	A5 (%)	Impact Energy (J) ISO-V			Hardness
				RT	-40°C	-60°C	
As Welded	485	580	27	120	100	60	HRc

REDRYING Not required

GAS ACC. EN ISO 14175



CEWELD Ultra Clean S3Si

ULTRA CLEAN S3Si 4,0MM

Packaging	KG/unit	EanCode
Drum	300	8720682052013
K-415	25	8720682052020

ULTRA CLEAN S3Si 2,4MM

Packaging	KG/unit	EanCode
K-415	25	8720682052037
Drum	2,4	8720663424815