

Classifications

EN ISO 14341-A	AWS A5.18 / SFA-5.18
G 42 4 M21 3Si1	ER70S-6
G 42 2 C1 3Si1	

Characteristics and typical fields of application

Pipeshield X series of solid wires for GMAW are specifically designed for fully automatic circumferential all position pipe welding. Pipeshield X combine the benefits of engineered wire surfaces and thoroughly controlled chemical compositions leading to good impact values even at low temperatures. Consistent wire geometry supports wire feeding and stable arc performance.

Pipeshield X 60 covers pipe steel grades up to API X60 offering good impact toughness at low temperatures down to -40 °C . Often used for root pass welding with higher tensile pipe grades.

Base materials

EN: L290MB – L450MB
API Spec. 5L: X42, X46, X52, X56, X60

Typical analysis

	C	Si	Mn
wt.-%	0.08	0.85	1.50

Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact energy ISO-V KV J	
	MPa	MPa	%	-20 °C	-40 °C
u1	430 (≥ 420)	540 (500 - 640)	25 (≥ 20)	> 47	
u2	450 (≥ 420)	560 (500 - 640)	24 (≥ 20)		70 (≥ 47)
u1 untreated, as welded – shielding gas 100% CO ₂					
u2 untreated, as welded – shielding gas Ar + 15 – 25% CO ₂					

Operating data

	Polarity	DC+	Dimension mm
	Shielding gas	C1	1.0
	(EN ISO 14175)	M21	1.2

Approvals

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