

## Classifications

EN ISO 16834-A	EN ISO 16834-B	AWS A5.28 / SFA-5.28
G 55 6 M21 Mn3Ni1Mo	G 62A 6 M21 3M1 N2M2T	ER90S-G
G 55 4 C1 Mn3Ni1Mo	G 626A 4 C1 3M1 N2M2T	

## 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 90 covers pipe steel grades up to API X80Q and is designed for welding in all positions. Good cryogenic impact energy down to -60°C and low hydrogen contents in the deposit.

## Base materials

S460N, S460M, S460NL, S460ML, S460Q-S555Q, S460QL-S550QL, S460QL1-S550QL1, 460N, P460NH, P460NL1, P460NL2, L415NB, L415MB-L555MB, L415QB-L555QB, 20MnMoNi4-5, 15NiCuMoNb5-6-4;

ASTM A 572 Gr. 65; A 633 Gr. E; A 738 Gr. A; A 852; API 5 L X60, X65, X70, X80, X60Q, X65Q, X70Q, X80Q

## Typical analysis

	C	Si	Mn	Ni	Mo
wt.-%	0.08	0.60	1.8	0.9	0.30


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

Condition	Yield strength R <sub>p0.2</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact energy ISO-V KV J	
	MPa	MPa	%	-40°C	-60°C
u1	620 (≥ 550)	700 (≥ 640)	23 (≥ 18)	110 (≥ 70)	60 (≥ 47)
u2	590 (≥ 550)	680 (≥ 640)	22 (≥ 18)	80 (≥ 47)	-

u untreated, as welded – shielding gas Ar + 15 – 25% CO<sub>2</sub>

u2 untreated, as welded – shielding gas 100% CO<sub>2</sub>

## Operating data

	<b>Polarity</b>	DC+	<b>Dimension mm</b>
	<b>Shielding gas (EN ISO 14175)</b>	M21 C1 Ar + 0 – 5% CO <sub>2</sub> + 3 – 10% O <sub>2</sub>	
		1.0	

## Approvals

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