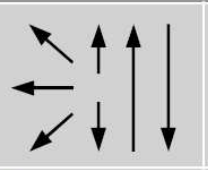


Classifications								
<b>EN ISO 16834-A</b>	<b>EN ISO 16834-B</b>			<b>AWS A5.28</b>		<b>AWS A5.28M</b>		
G 69 5 M21 Mn3Ni1CrMo	G 76A 5 M21 3M1			ER110S-G		ER76S-G		
Characteristics and typical fields of application								
<p>GMAW wire for the welding of high-strength, heat treated, fine-grained constructional steels with a minimum yield strength of 690 MPa.</p> <p>Due to the precise addition of micro-alloying elements X 70-IG wire features excellent ductility and crack resistance in spite of its high strength.</p> <p>Good cryogenic impact energy down to -50°C.</p>								
Base materials								
<p>High-strength fine-grained steels</p> <p>S620Q, S620QL, S690Q, S690QL, N-A-XTRA M 700, alform<sup>®</sup> plate 620 M, alform<sup>®</sup> 700 M, alform<sup>®</sup> plate 700 M, aldur 620 Q, 620 QL, aldur 700 Q, 700 QL</p> <p>ASTM A 514 Gr. F, H, Q; A 709 Gr. 100 Type E, F, H, Q ; A 709 Gr. HPS 100W</p>								
Typical analysis of solid wire (wt.-%)								
	C	Si	Mn	Cr	Ni	Mo	V	
wt-%	0.1	0.6	1.6	0.25	1.3	0.25	0.1	
Mechanical properties of all-weld metal								
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 work ISO-V KV J	
	MPa		MPa		%		+20°C	-50°C
u	<b>800 (≥ 690)</b>		<b>900 (770-940)</b>		<b>19 (≥ 17)</b>		<b>190</b>	≥ 47
u untreated, as welded – shielding gas Ar + 15 – 25% CO <sub>2</sub>								
Operating data								
		<b>Polarity:</b> DC ( + )	<b>Shielding gases:</b> Argon + 15 – 25% CO <sub>2</sub>				<b>ø (mm)</b> 1.0 1.2	
Preheating and interpass temperature as required by the base metal.								
Approvals								
TÜV (5547.), DB (42.014.19), ABS (X), BV (UP), DNV (IV Y69), GL (5Y69S), RMR (4Y69), SEPROZ, CE								