

ER 120 S-1 Tig

CATEGORY	GMAW-GTAW Solid wires								
TYPE	Extreme high tensile strength alloy with excellent impact properties for fine grain steels exceeding 890 N/mm ² yield strength.								
APPLICATIONS	Welding materials such as S960QL - S1100Q and other similar fine grain cold tough steels. Offshore, crane building etc.								
PROPERTIES	Extreme high tensile strength alloy with very good mechanical properties and perfect welding characteristics. High impact strength at very low temperatures with exceptional plasticity of the weld deposit. Weldable with Co ₂ and Mix gas.								
CLASSIFICATION	<table border="0"> <tr> <td>AWS</td> <td>A 5.28: ER 120 S-1</td> </tr> <tr> <td>EN ISO</td> <td>16834-A: W 89 5 M Mn4Ni2,5CrMo</td> </tr> <tr> <td>DIN: W.Nr.</td> <td>1.8983</td> </tr> <tr> <td>DIN</td> <td>8575:</td> </tr> </table>	AWS	A 5.28: ER 120 S-1	EN ISO	16834-A: W 89 5 M Mn4Ni2,5CrMo	DIN: W.Nr.	1.8983	DIN	8575:
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EN ISO	16834-A: W 89 5 M Mn4Ni2,5CrMo								
DIN: W.Nr.	1.8983								
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SUITABLE FOR	XABO 90, StE890V, StE960TM, Weldox 700, weldox 900, StE 890, S890QL1, A517, X120, StE 960, S960QL1, S1100 (till 12 mm)								
APPROVALS	CE approved								

WELDING POSITIONS:



WELD METAL ANALYSIS ACC. AWS IN WEIGHT %

C	Mn	Si	Cr	Ni	Mo	Cu	Ti	Zr	Al
<0.1	1.4-1.8	0.25-0.60	<0.6	2.0-2.8	0.30-0.65	<0.25	<0.10	<0.10	<0.10

MECHANICAL PROPERTIES

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				-20°C	-50°C	-60°C	
AW (M21)	930 / 1030	970 / 1070	>14		>68		
AWS spec.	>730	>830	>14		>68		

AW: as welded

WELDING PARAMETERS / PACKING

D (mm)	Welding Parameters		Packing (kg)	
	Current (A) DC-		single	master
1,6 x 1000	50-80		5	25
2,4 x 1000	110-180		5	25
3,2 x 1000	150-280		5	25

REDRYING TEMPERATURE not required

GAS ACC. EN ISO 14175: I1