

## Classifications

<b>EN ISO 18276-A</b>	<b>AWS A5.28</b>
T89 6 Z M M 1 H5	E120C-H4

## Characteristics and typical fields of application

Seamless, Nickel-Chromium-Molybdenum alloyed, metal cored wire for single- or multilayer welding of high strength steels to be used with Ar-CO<sub>2</sub> shielding gas. This metal core wire shows high efficiency, excellent bead appearance, very low spatter losses and low slag formation. The low diffusible hydrogen content of the pure weld metal (1-3ml/100g) and the outstanding mechanical properties at low temperatures (-60°C) make this wire perfect suitable for offshore applications and crane fabrication.

## Base materials

S690Q-S890Q, S690QL-S890QL, PAS 700, ASTM A 709 Gr. 100 Type B, E, F, H, Q, HPS 100W

## Typical analysis of all-weld metal

	Gas	C	Si	Mn	Cr	Ni	Mo
wt-%	M21	0.10	0.50	1.85	0.40	2.60	0.55

## 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	%	-40°C	-60°C
u	<b>960</b> (≥890)	<b>1010</b> (940-1180)	<b>17</b> (≥15)	<b>58</b>	<b>55</b> (≥47)

u untreated, as welded – shielding gas M21

## Operating data

	<b>Polarity:</b> DC ( + )	<b>Shielding gas:</b> (EN ISO 14175) M21	<b>ø (mm)</b> 1.2
			1.6

Welding with standard GMAW power source possible

## Approvals

TÜV, CE