

Classifications

EN ISO 17632-A	EN ISO 17632-B	EN ISO 17634-A	EN ISO 17634-B	AWS A5.28
T 46 4 Mo M M 1 H5	T554T15-1MAP-2M3-H5	T Mo M M 1 H5	T55T15-1M-2M3-H5	E80C-GH4

Characteristics and typical fields of application

Union MV Mo is a molybdenum-alloyed wire with metal powder filling, suited for welding on creep resistant boiler, pressure vessel and pipe steels with high creep strength and heat resistance up to 500 °C (932 °F).

It is applicable in positions PA, PB, PC, PF with mixed gas M21 according to EN ISO 14175.

It provides very low oxide formation, stable and smooth arc, smooth droplet transfer and secure penetration. It is excellent suited for manual and mechanised single and multilayer welding.

Base materials

Pressure vessel steels P235GH, P265GH, P295GH, P355GH, P460NH, 16Mo3 and corresponding TM-grades;

X52, cast steel GS-52, G20Mo5 and others,

Fine-grained structural steels up to S460N;

Pipe steels L210 - L450MB

(X42-X65) and according TM steels up to 445.7 TM

Typical analysis of all-weld metal (wt.-%)

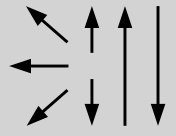
	C	Si	Mn	P	S	Mo	Gas
wt-%	0.08	0.45	0.75	< 0.015	< 0.015	0.5	M21

Mechanical properties of all-weld metal

Heat-treatment	Shielding gas	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact work ISO-V KV J		
		MPa	MPa	%	+20 °C	-20 °C	-40 °C
aw	M21	460	550	20	100	47	47
a	M21	460	550	17	47		

620 °C (1148 °F) / 1 h

Operating data

	Polarity: DC (+)	Shielding gas: (EN ISO 14175) M21 Consumption: 15 – 20 l/min	ø (mm) 1.2	Spool B300	Amps A 120 – 300	Voltage V 17 – 32
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Approvals

TÜV (11100), CE