

TECHNICAL DATA

Standards

DIN Material Nr. 1.5424

EN ISO 21952-A :	G Mo Si
AWS A5.28 :	ER80S-G

General Properties / Field of Applications

DSI M 90 is a martensitic Laser Welding Wire made of low-alloy steel containing molybdenum for welding of 16Mo3 and similar high-temperature steels. Operating temperatures up to 500°C (short-term up to 550°C). The weld is carburisable, resistant to ageing and alkali cracking and applicable for nitride coating. High performance in etching surfacing process, mirror surface finishing.

Mechanical Properties

Yield strength $R_{p0.2}$	[MPa] / [N/mm ²]	530
Tensile strength R_m	[MPa] / [N/mm ²]	640
Elongation A ($L_0 = 5d_0$)	[%]	27

Chemical Composition (Standard Values in %)

C	Si	Mn	Mo
0.1	0.6	1.1	0.5

Compatible Materials (Selection)

16Mo3 / 20MnMoNi4-5 / 15NiCuMoNb5 / S235JR-S355JR / S450JO / S355J2
NAK55 / NAK 80 / HPM50 / 40CMD8S / 40CMD8 / SP300 / M238 / MAS1C / P20
PX-5 / EM38 / SPM-20 / FC25 / N238 / MP20 / KD20 / S50C/ Toolox33 / M300
S136 / DH2FP20 / M300 / S136 / DH2F / 1.2311 / 1.2312 / 1.2738 / 1.2767

Packaging and available Sizes*

Spool : MA125 mm	Ø mm	0.2 / 0.3 / 0.4 / 0.5 / 0.6 / 0.7 / 0.8 / 1.0 / 1.2
Rod : 500 / 1000 mm	Ø mm	0.2 / 0.3 / 0.4 / 0.5 / 0.6 / 0.7 / 0.8 / 1.0 / 1.2

* Other dimensions available on request

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