

TECHNICAL DATA

Standards

Material : Stelite 21

AWS 5.21 :	ERCoCr-E
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General Properties

DSI M ST21 is a Cobalt-base Laser Welding Wire known for its excellent wear resistance, corrosion resistance, including acidic and saline conditions, and ability to maintain hardness and mechanical properties at elevated temperatures. Excellent Wear Resistance – High resistance to metal-on-metal wear and galling. Good Toughness and Ductility. Biocompatibility.

Mechanical Properties

Yield strength $R_{p0.2}$	[MPa] / [N/mm ²]	460 - 600
Tensile strength R_m	[MPa] / [N/mm ²]	880 - 1030
Elongation A ($L_0 = 5d_0$)	[%]	8 - 15
Hardness (as cast)	[HRC]	28 - 40
Max. operating temperature	[°C]	~850

Chemical Composition (Standard Values in %)

Co	Cr	Mo	Ni	Fe	C	Mn	Si	W
Base	27.0	6.0	4.0	2.0	0.25	1.5	1.0	0.5

Field of Applications (Selection)

Turbine blades, engine components. Steam turbine components. Valve seats, pump parts, drilling tools. Implants, prosthetics. Wear-resistant cutting tools. Biocompatibility, used in medical implants due to its corrosion resistance and non-magnetic properties.

Packaging and available Sizes*

Rod : 500 / 1000 mm	Ø mm	1.2
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* Other dimensions available on request

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