

TECHNICAL DATA

Standards

Material : Stelite 6

AWS 5.21 :	ERCoCr-A
UNS :	R30006

General Properties

DSI M ST6 is a Cobalt-base alloyed Laser Welding Wire with an excellent wear resistance to abrasion as well as in metal to metal application. Resistance to galling and corrosion, retain these properties at high temperatures. Resistant to oxidation up to its melting range and can be satisfactorily specified in sour gas as well as other corrosive applications.

Mechanical Properties

Yield strength $R_{p0.2}$	[MPa] / [N/mm ²]	600
Tensile strength R_m	[MPa] / [N/mm ²]	900
Elongation A ($L_0 = 5d_0$)	[%]	3 - 6
Hardness (as cast)	[HRC]	40 - 44

Chemical Composition (Standard Values in %)

Co	Cr	W	C	Ni	Fe	Mn	Si	Mo
Base	27-32	4-6	0.9-1.4	≤ 3	≤ 3	≤ 1	≤ 2	≤ 1

Field of Applications (Selection)

Valve seats, flow control components. Turbine engine parts, exhaust valves. Steam and gas turbine blades. Surgical instruments and implants. Cutting tools, dies, and wear-resistant coatings.

Elevated Temperatures

400°C (750°F) : 32 HRC	800°C (1475°F) : 22 HRC
600°C (1110°F) : 28 HRC	900°C (1620°F) : 20 HRC

Packaging and available Sizes*

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

wires@dsilaser.com

