

DESCRIPTION

Stoodite® 21-M wire deposits a low carbon austenitic cobalt type alloy with excellent work hardenability, high temperature, strength, and impact resistance. These deposits are quite stable during thermal cycling, making them a favorite for hot die materials. Resistance to galling (self-mated), corrosion and cavitation erosion make Stoodite®21 a good choice for valve trim on steam and fluid control valve bodies and seats. It bonds well to all weldable steels, including stainless.

TYPICAL APPLICATIONS

Typical applications include:

- Steam valves
- Hot shears
- Chemical and petrochemical valves
- Hydro-turbine cavitation repair
- Forging dies
- Piercing plugs

TYPICAL DEPOSIT CHARACTERISTICS

Abrasion Resistance	Fair
Impact Resistance	Excellent
Corrosion Resistance	Good
Hardness (2 layers)	HRC 22 - 26
Work hardened	HRC 40 - 45
Hot Hardness	Excellent
Magnetic	No
Deposit Layers	Unlimited
Surface Cross Check	No
Machinability	Use carbide tools
Specifications	
AWS A5.21-2001	ERCCoCr-E

OPERATIONAL CHARACTERISTICS / WELDING PARAMETERS

Diameter, In. (mm)	.045 (1.2)	1/16 (1.6)
Current, Amp. DCEP	180 - 200	280 - 300
Voltage	25 - 27	26 - 28
Shielding Gas	Argon	Argon
Wire Extension	1/2" - 5/8"	5/8" - 3/4"
Position	Flat	Flat

TYPICAL DEPOSIT CHEMISTRY (wt%)

Carbon	0.3
Chromium	27.4
Iron	3.8
Manganese	0.7
Molybdenum	5.4
Nickel	2.0
Silicon	0.5
Tungsten	0.1
Cobalt	Balance

STANDARD SIZES & PACKAGING

Diameter	Packaging	Part #
.045" (1.2mm)	25# Spool	812122182045
1/16" (1.6mm)	25# Spool	812122182062

Stoody Company

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NOTICE - Failure to follow manufacturer's directions for use may result in equipment or material failure and void any applicable warranty. The data provided or referenced herein is provided for informational purposes only, without guarantee or warranty and represents "typical" results when Stoody products are used in accordance with internal Stoody procedures. Other tests and procedures may produce differing results. Stoody expressly disclaims any liability resulting from reliance on this data.
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