

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

STANDARD SIZES & PACKAGING

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

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

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