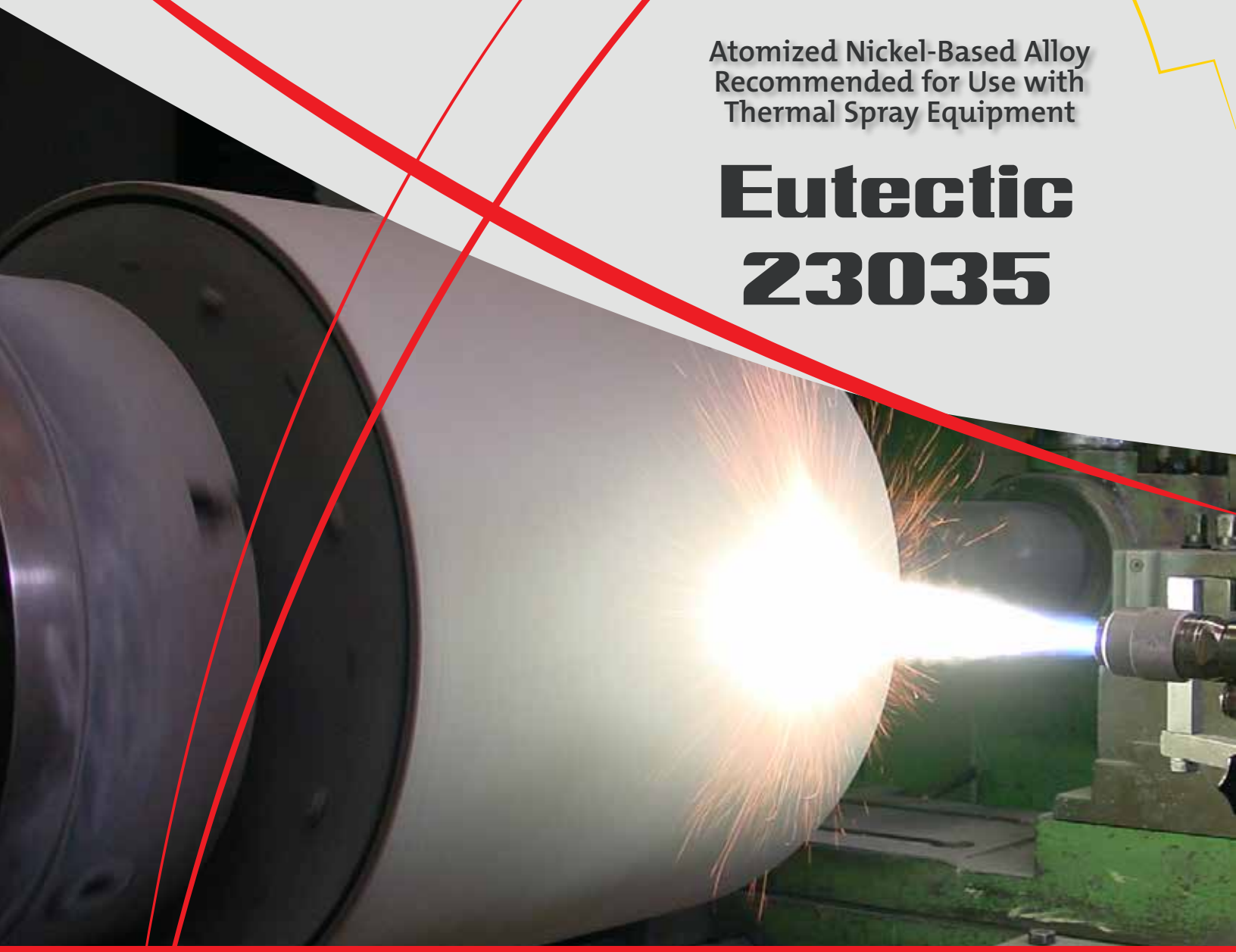
Castolin Eutectic®
Eutectic Castolin

Atomized Nickel-Based Alloy
Recommended for Use with
Thermal Spray Equipment

Eutectic 23035



- Precise particle sizing
- Exceptionally hard deposits have high resistance to abrasion and friction
- May be used in a wide variety of thermal spray processes

Eutectic 23035

Eutectic 23035 is a high performance atomized nickel alloy powder optimized to produce hard, durable, abrasion and friction resistant coatings with a multitude of thermal spray process equipment.

Controlled composition based on AWS A5.13 and precise particle sizing ensures consistent deposition, fusing and hardness.

TECHNICAL DATA

Typical Values*	
Typical Hardness:	49 HRC
Shrinkage on fusing:	17 - 20%
Typical density:	7.6 g/cc
Melting range:	Solidus: 1760°F Liquidus: 2000°F Furnace Fusing: 2170°F (set point)
Hall Flow Rate:	18 seconds
Bulk Density:	4.0 g/cc
Powder Coverage:	0.042 lb/ft^2 @ 0.001”

PROCEDURE FOR USE

Grinding Wheel Type: Green Silicon Carbide
Grit Size: 60 - 80 Grade: H (soft) Structure: 5
Bond Type: Vitrified
Wheel Speed: Use Manufacturer’s Recommendation
Work Speed: 50 -65 surface feet per minute
Traverse Speed Roughing: 5-15 inches per minute
Finishing: 3-8 inches per minute
In-Feed Roughing: 0.001 inches per pass
Finishing: 0.0005 inches per pass or less
Coolant: Flood coolant with rust inhibitors in 2-5% concentration

Notes:

1. *Before grinding, all edges and ends of coating must be chamfer ground.*
2. *Frequently dress the grinding wheel face to reduce friction and heat.*

Recommended Parameters

TD 2000

Nozzle:	RL 200
RotoJet:	RPA 3@ 15 psi air
Module Adaptor:	Yellow/Red Multi-Oriface set to 5
Oxygen:	50 psi / 30 flow (FM-1 flowmeter)
Acetylene:	12 psi / 60 flow (FM-1 flowmeter)
T-Valve Setting:	20 clicks
Coating Rate:	24 lb/hr
Deposit Efficiency:	90%
Spray Distance:	6 to 8 inches

TD 3000

Nozzle:	RL 200
Oxygen:	50 psi / 32 flow
Acetylene:	12 psi / 48 flow
Carrier Gas:	Ni @ 55 psi
Terometer:	130
Coating Rate:	20 lb/hr
Spray Distance:	6 to 8 inches
Deposit Efficiency:	90%

TYPICAL APPLICATIONS

- Wash pipes (petroleum drilling)
- Guide plates
- Trimming dies
- Auger flights
- Pistons
- Hydraulic cylinders

Observe normal spraying practices, respiratory protection and proper air flow pattern advised. For general spray practices, see AWS Publications AWS C2. 1-73, “Recommended Safe Practices for Thermal Spraying and AWS TSS-85, “Thermal Spraying, Practice, Theory and Application.” Thermal spraying is a completely safe process when performed in accordance with proper safety measures. Become familiar with local safety regulations before starting spray operations.DO NOT operate your spraying equipment or use the spray material supplied, before you have thoroughly read the equipment instruction manual. Refer to the Eutectic website for Material Safety Data Sheet (MSDS) information. DISREGARDING THESE INSTRUCTIONS MAY BE HAZARDOUS TO YOUR HEALTH.

Castolin Eutectic® Eutectic Castolin

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