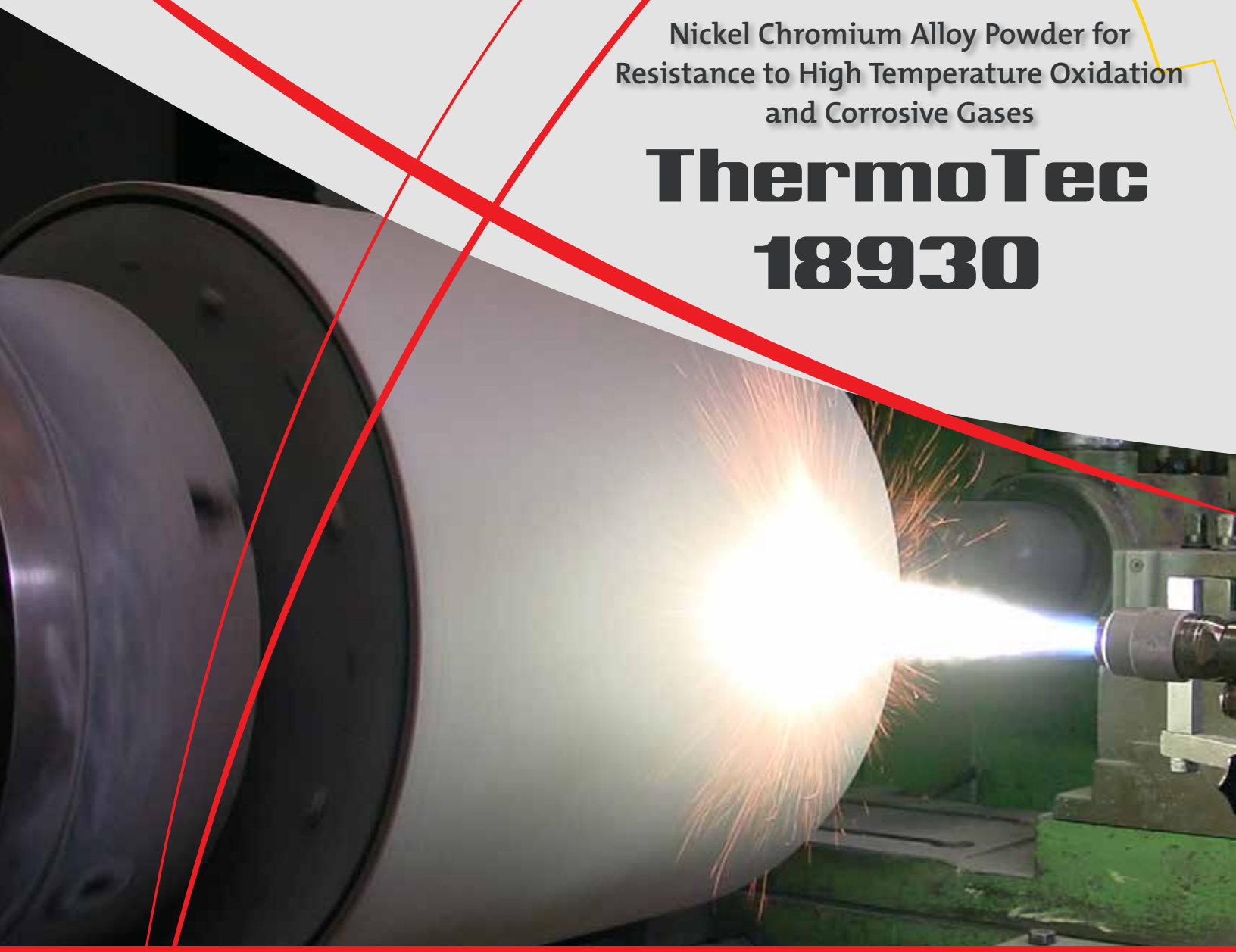
Castolin Eutectic®
Eutectic Castolin

Nickel Chromium Alloy Powder for
Resistance to High Temperature Oxidation
and Corrosive Gases

ThermoTec 18930



- Excellent resistance to corrosive gases and oxidizing atmospheres at elevated temperatures
- Self bonding with good bond strength
- Often used under ceramic top coats in high temperature applications
- Coatings are readily machinable

ThermoTec 18930

ThermoTec 18930 is an atomized, pre-alloyed powder which produces homogenous coatings when applied via the combustion or plasma non-transferrred arc thermal spray process.

ThermoTec 18930 is similar in chemical composition to ThermoTec 18923 plasma powder and offers equivalent resistance to corrosive gases and oxidizing atmospheres at elevated temperatures. ThermoTec 18930 differs from ThermoTec 18923 in particle size distribution. This results in a rougher as sprayed surface finish, which is more suitable as a bond coat for oxide ceramic overlay coatings.

ThermoTec 18930 is also used in cermet compositions where gradient coatings are required.

TECHNICAL DATA

Typical Values	
Macrohardness:	90-95 HRB
Coating Density:	7.2 g/cc
Max. Service Temp.:	1800°F (continuous)
Bond Strength*:	6500 Psi
Nominal Particle Size:	-140 +325 µm

* Bond strength based on ASTM C633 procedure. Actual values will vary depending on method of surface preparation.

Composition: Nickel (80%), Chromium (20%)

PROCEDURE FOR USE:

Made for use with Castolin Eutectic's TeroDyn TD 2000/3000 high energy combustion system or conventional Plasma Spray equipments.

ThermoTec 18930 coatings should be applied to clean and rough surfaces for maximum bond strength. Grit blasting is the recommended surface preparation.

ThermoTec 18930 plasma powder can be used effectively in plasma arc flame spray system supplied by all leading manufacturers.

For more information and to determine which equipment is right for your coating needs, please contact Castolin Eutectic Technical Services.

TYPICAL APPLICATIONS

APPLICATIONS	INDUSTRY
Piston Heads, Pumps	Marine
Steam Valves, Ball Valves	Pulp & Paper
High temp bond coat for ceramic coatings. Dimensional restoration of Stainless and Ni base alloys	General

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.

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