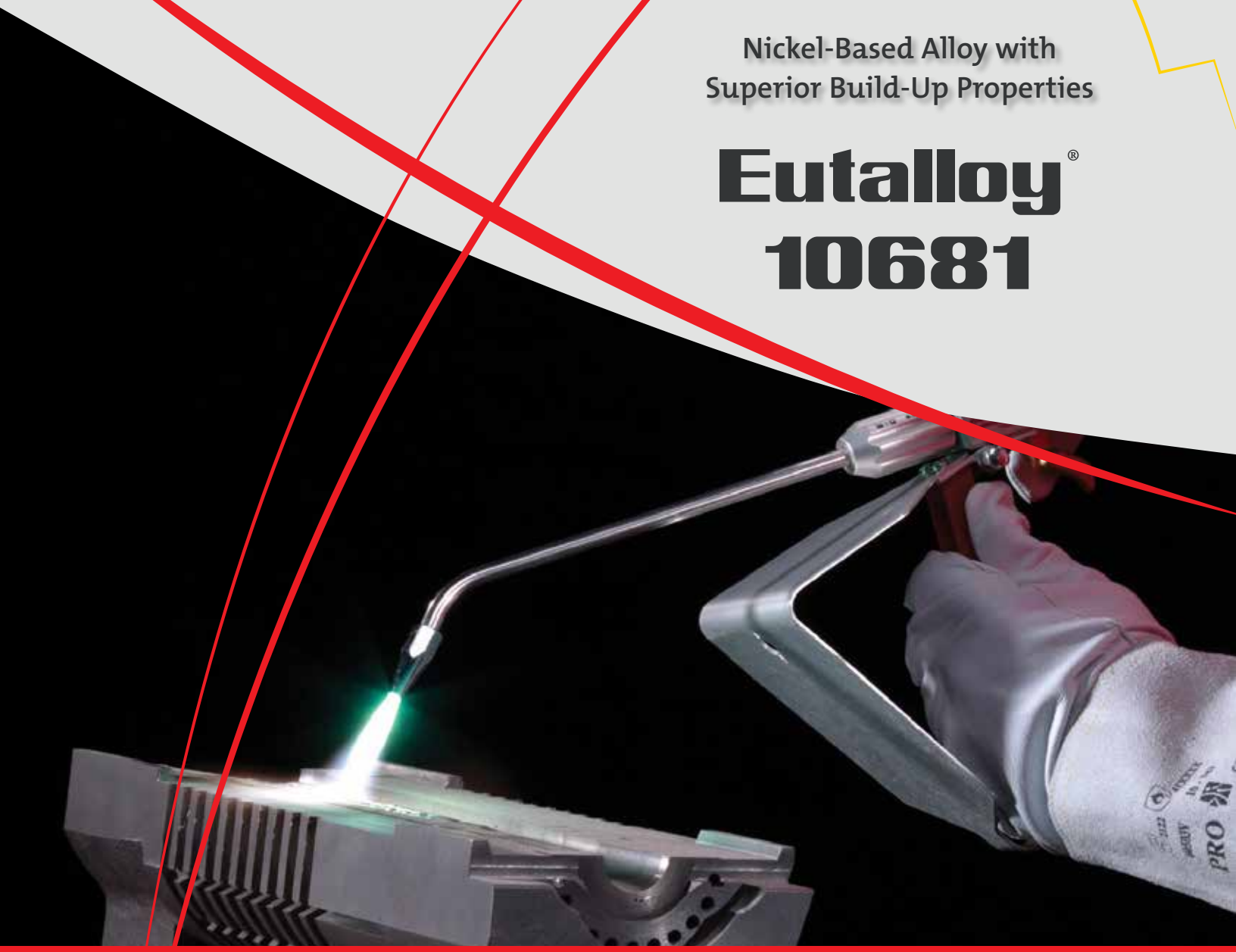
Castolin Eutectic®
Eutectic Castolin

Nickel-Based Alloy with
Superior Build-Up Properties

Eutalloy® 10681



- Excellent build up on edges and corners with no sagging or running
- Deposits are dense with excellent machinablity
- Can be applied to contoured parts and complex geometries without cracking
- Precise deposition with minimal overspray

Eutalloy® 10681

Eutalloy 10681 is a premium nickel base alloy powder designed to provide optimum and easy build-up on steel, cast iron, stainless steel, nickel and nickel alloy parts with excellent machinability.

It has great success in buildup on edges and corners with no sagging or running and crack free. Machined deposits are bright and porosity free. The hardness of this alloy promotes good edge integrity while not detracting from its machinability. The high compressive strength of this alloy resists deformation at elevated temperatures. Deposits will not scale even at elevated temperatures. The Eutalloy process permits precise deposition with a minimal amount of overspray. Thin, tough overlays can be applied and dimensional tolerances maintained.

TECHNICAL DATA

Typical Coating Properties	
Hardness:	RB 78-85
Max. Service Temperature:	1000°F - 1400°F 538°C - 760°C
Powder Coverage:	1.27 lb (575g) covers 32.5 sq.in per 0.125" thick
Typical Powder Properites	
Nominal Composition:	Nickel, Boron, Silicon
Bulk Density:	4.8 g/cc

PROCEDURE FOR USE

EQUIPMENT:

Eutalloy 10681 may be applied by the Eutalloy torch using acetylene as the fuel gas.

PREPARATION:

All surfaces to be coated should be thoroughly cleaned, removing all contaminants, oxides and grease. Thin surfaces and edges require no preheating. However, large, heavy and cast iron parts of all thickness should be heated to about 575°F (approx. 302°C) (blue hot).

COATING INSTRUCTIONS:

For coating operations, the flame of the Eutalloy torch should be adjusted to neutral with the powder feed on. To prevent oxidation of the base material, we recommend spraying a thin coat of Eutalloy 10681. A second coat is delivered in the following manner: preheat locally to fusion point (when the first coat becomes glazed in appearance), then spray and fuse the second coat simultaneously. Move progressively along, spraying and fusing, until the entire surface is covered. Distance between the cone of the flame and the piece should be .25 - .75 inches. Leave the part to cool slowly and away from air currents. Where possible, place it in vermiculite or cover with a thermal blanket.

TYPICAL APPLICATIONS

Used for dimensional buildup. It has been most successful in the build-up of corners on keyways, shoulders on shafts, bosses on steel castings.

Other applications include: screw flights, gear teeth, sprocket teeth, cams, ways, dovetails, gibs, fillets, rollers, mandrels, arbors, hubs, pulleys, glass moulds, plastic, tire and brick moulds.

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