



Gas Atomized Cobalt Based Powder
for the Laser Cladding Process

LaserClad®

41012



- Spherically shaped to ensure highest purity
- Excellent resistance to high temperature oxidization
- Good friction properties
- Good resistance to corrosion and abrasion under heavy pressure

LaserClad® 41012

The powder alloy LC 41012 has been specially developed to meet the metallurgical and physical standards of the laser cladding process. The alloy characteristics, combined with the regularity and efficiency of the process, give: constant high quality deposits, very low dilution of the base metal and high deposition speed.

LC 41012 is a pre-alloyed powder. It is manufactured by gas atomization to have a spherical shape and to ensure the highest purity, in particular to keep a low oxygen content. The spherical shape and the grain-size distribution of the particles ensures a regular flow of powder through the equipment. Excellence resistance to high-temperature oxidation. Good resistance to corrosion and abrasion, even under heavy pressure. Good friction properties.

TECHNICAL DATA

Typical Values	Minimum	Nominal
Hardness undiluted:	43 HRC	46 HRC
Max. Service Temperature:	1382°F (750°C)	

Other size ranges can be supplied on request.

Nominal Composition: C, Cr, W, Co

Powder morphology: Pre-alloyed, homogeneous, spherical particles of uniform composition.

PROCEDURE FOR USE:

Preheat followed by slow cooling is necessary for a crack-free deposit. The preheat temperature depends on the dimensions and shape of the part and the deposit.

Please contact your Eutectic Surface Coatings Specialist for more information.

TYPICAL APPLICATIONS

- Extruder screws for plastics
- Conveyor screws
- Machinery for cutting and crushing organic waste
- Steam valve components

