



METALLIC COATINGS

FOR OPTICS SIZE UP TO 2 METERS

- > ENHANCES OPTICAL SYSTEMS PERFORMANCES
- > INDUSTRIAL VOLUME PRODUCTION
- > PROTECTED AND ENHANCED METALLIC MIRRORS
- > DENSE COATINGS SUITABLE FOR SEVERE ENVIRONMENTS
- > FLEXIBLE DESIGNS FOR ANY SPECTRAL BANDWIDTH BETWEEN 250 nm AND 16 μm

METALLIC COATINGS

SOLUTIONS FOR LARGE OPTICS COATINGS

Metallic coatings main references

CILAS operates a platform of several coating chambers to produce metallic coatings dedicated to the largest optical components for industry, space, defence and scientific markets.

- > Since 2010: Production of the amplifiers' reflectors for the Laser Mega Joule program
- > 2011: Production of CILAS 1st space qualified silver coating for the PROBA-V space mission
- > 2014: Aluminum coating of the 1.25m diameter primary mirror of the OAJ astronomical telescope
- > 2015: Volume production of metallic mirrors for solar simulators
- > 2016: Development and production of a space qualified silver coating suitable for IR range up to 16 μ m
- > 2018: Silver coating of the 1.35m diameter OGSE mirror for EUCLID space mission

Features of Large metallic coatings	
Substrate materials	Silica, Zerodur®, stainless steel, aluminum, SiC, etc.
Substrate shapes	Flat, concave and convex mirrors
Substrate characteristics	Up to 2 meters x 2 meters, 400mm height and 1.5 tons
Coating type	Protected and enhanced metallic coatings
Coating materials	Oxides, silver, aluminum... Up to 5 materials processed in a coating batch
Process temperature	Below 120°C
Coating thickness	Up to 30 μ m
Cosmetics	5/C 1x0.16 per 25mm pupil according ISO 10110-7
Environmental compatibility	Suitable for severe environments
Qualification heritage	Atomic oxygen, radiations, humidity, vacuum

MAJOR APPLICATIONS

Fields of application

- > Industry
 - Volume production of metallic coatings up to 2m
- > Astronomy
 - Telescope mirrors including Primary mirrors up to 2m
- > Space
 - High performance mirrors for OGSE and qualified flight models up to 2m

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