The coatings offered by Safran Reosc cover all bandwidths from 160 nm to 16 μm, and all size components from just a few millimeters up to 1.5 meters. Robust designs and proven fabrication processes are compatible with even the most complex stacking arrangements: more than 100 layers, from 1 nm to 50 μm thick. The combination of optical coating and photolithography technologies means that several spectral functions can be achieved in a single component (filtering, absorption, etc.).
Safran Reosc offers a complete range of optical coatings, from extreme UV to far infrared and has built up an unrivaled expertise through multiple contributions to the most demanding astronomy and space programs.

Combining engineering excellence with production know-how, Safran Reosc covers the entire process, from design and manufacturing to testing and inspection, providing customers with very high performance optical components.

Thanks to its multidisciplinary expertise (mechanical, optical, thermal, etc.), Safran Reosc conducts advanced thermomechanical research, enabling a realistic simulation performance under operational conditions and adjustment of the design to specific needs.

Safran Reosc proposes custom-tailored optical coating solutions, addressing all performance aspects beyond spectral response.

Safran Reosc offers a broad product range: antireflecting, dichroic, polarizing, narrow-band filtering, absorbent, mirror,

The main challenge when dealing with thin-film optics is to guarantee high performance and reliability even under the harshest environmental conditions, including humidity, temperature, radiation, resistance to laser flux, etc.

Reosc’s technologies meet these requirements, and are particular well suited to operations in event most demanding environments: space, cryogenics, high-energy lasers, etc.

Safran Reosc deploys coating machines (8 coatings chambers up to 1.5m), fitted with precision optical control systems, allowing to develop and manufacture the highest performance optical components. Extensive characterization and control of coatings performance is carried out, thanks to a complete set of test instruments, plus vacuum and cryogenic chambers: a wide range of actual operating conditions can be experimentally simulated.

These machines and equipment are installed in a 600 square meters ISO 6 clean room.

In addition, structuration of optical coatings down to the pixel level can be performed thanks to a photolithography shop.

Safran Reosc offers unique production and testing facilities.

• 5 SPECTROPHOTOMETERS (0.12 - 50 ΜM)
• VISIBLE BAND MICRO-SPECTROPHOTOMETER
• INTERFEROMETERS
• PROFILOMETER
• CYROGENIC SPECTRAL MEASUREMENTS DOWN TO 25K
• THERMAL CYCLING CHAMBER [90-340°K]
• HUMIDITY CHAMBER
• LASER FLUENCE TEST BENCH
• ABSORPTION BENCH
• LASER REFLECTOMETERS
• NORMAL INC. MICROSCOPE

In 1937, Founding of Reosc.
1950, Aluminide and silver coatings for astronomy.
1977, First space-based earth observation system (Meteosat).
1980, >1 m class optical coating capabilities.
1987, Supply of space optics for Spot and Helios satellites (mirrors, multispectral filters).
2002, Production of nano-second laser for LMJ on 1 m class highfluence mirror.
2007, Polishing and coating of mirrors for the Near IR Spectrograph.
2008, Stripe filters for PLEIADES and CBERS mission.
2010, Polishing and coating of 193 nm optics for lithography scanner.
2013 Development and manufacture of NIR filters for Meteosat Third Generation.
2014, Development for coatings for femto-second laser with high fluence resistance.
2015, Development of detector coatings (multi-layer AR and pixelated filters) for VIS/NIR/IR bands.
2017, After M2, M3 and M4, ESO chooses Safran Reosc to polish the primary mirror on the Extremely Large Telescope (ELT).