

Technology

ENBIO have developed a novel, green, ambient temperature blast coating technique known as CoBlast. It uses a co-incident stream of abrasive and coating media to simultaneously remove a metal's passivating layer while depositing a coating on the newly exposed reactive metal surface. The process is carried out at room temperature and pressure using dry compressed air, and produces a coating typically in the range of 1-10 μm thick with a strong bond to the substrate, as illustrated below. The process is currently used to apply coatings for space for ESA as part of the Solar Orbiter mission.

More recently, ENBIO have been developing release surfaces using fluoropolymer coatings for tire and silicone moulding; REACH compliant structural bonding primers for metals to replace Chrome(VI) alternatives; and anti-galling treatments for bolts and fasteners to achieve consistent performance after several uses.

In tandem, ENBIO are working on spray-based coatings using silicates (SolarWhite) and sol-gels to expand the range of surface solutions they can offer customers

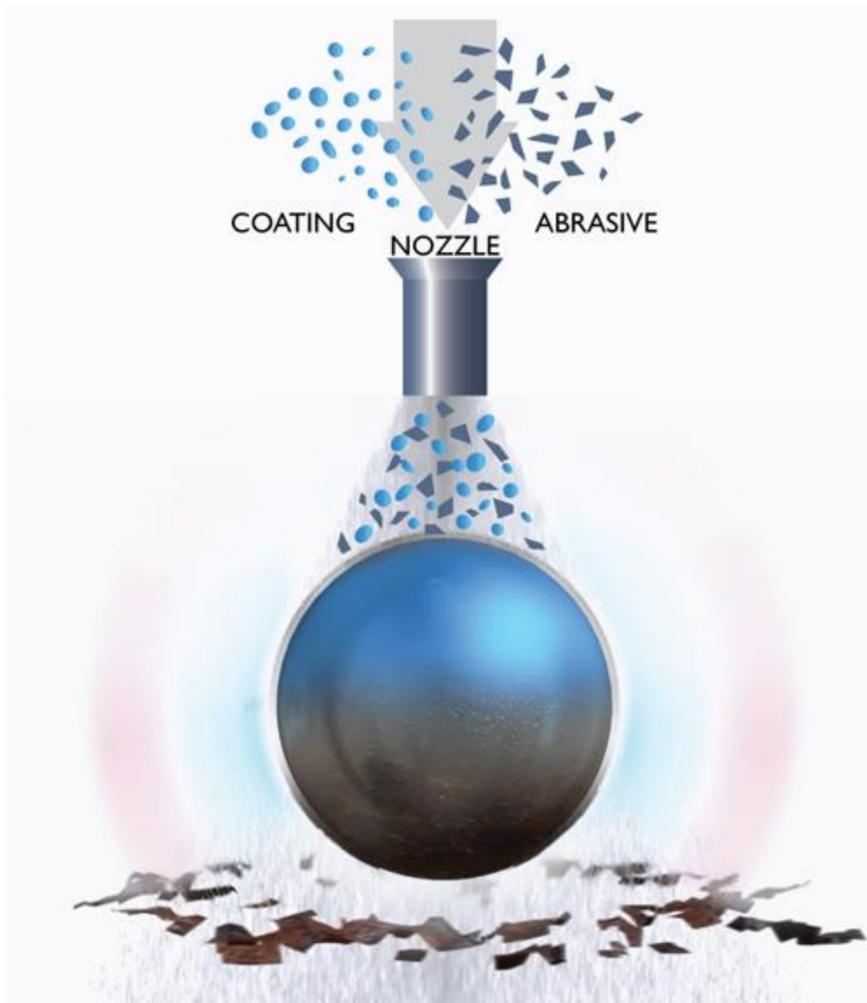
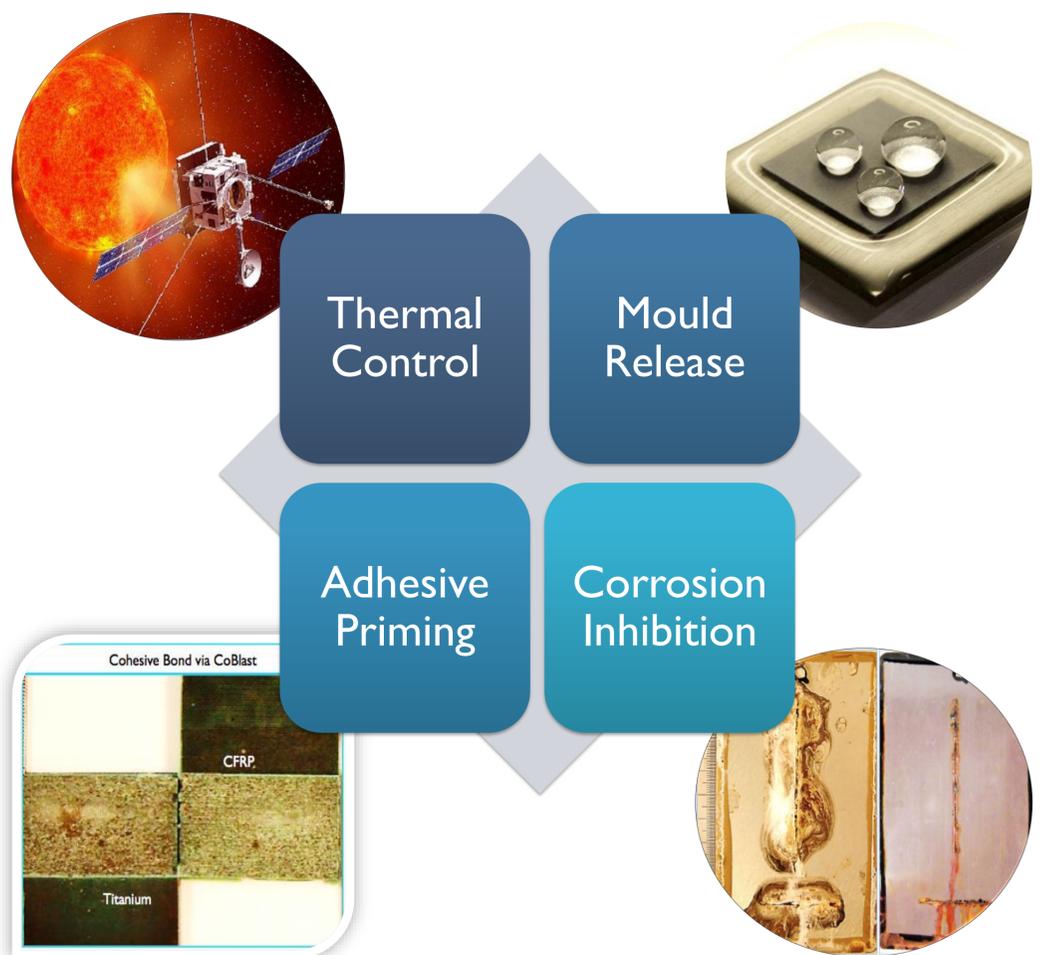


Illustration of the CoBlast Process



Range of application areas for ENBIO disruptive technologies

Company

ENBIO are an SME based in Dublin, Ireland, that develops innovative coating solutions for multiple sectors. The company have been developing novel surfaces for the space sector since 2011, with thermal control coatings being the first technology adopted by the European Space Agency as part of the Solar Orbiter mission. In 2017 the company received funding under the Horizon 2020 program to apply the CoBlast process to replacing Chrome(VI) adhesive primers and pre-treatments for the space sector. ENBIO's technical team includes a core of dedicated research and production engineers supported by contracted advisors. The team has the skills and experience to develop technologies from basic research stages right through to production, with more than 150 years of combined experience in a range of areas.

Interested in working with ENBIO?

ENBIO are interested in getting their surface solutions into the hands of the end-users and customers, as well as collaborating on development project with Research Institutes. If you are interested in a trial, please contact us at info@enbio.eu with the following information:

- Application area
- Problem statement
- Collaboration / funded development / one-off coating trial
- Substrate type and thickness
- Component geometry and area to be treated
- Operating requirements (for that sector)

We will assess your request and work with you to solve your problems