DIARC-Technology has been established in 1993 as a university spin off to commercialize a diamond coating technology with trademark DIARC®.

DIARC is a research intensive SME specialized on development and manufacturing of wear resistant and low friction thin film coatings on tools and components.

In the frontline of the material development we collaborate in several EU projects together with other European companies, universities and research institutions.

DIARC Technology provides smart surface solutions for its customers to improve the performance of their products and services.

DIARC has a long relationship with several large international companies which rely on the DIARC® Coatings on their products.

Our strategy is to create long-term sustainable customer relations based on the DIARC® Service.

DIARC® Service consists of:
- Application R&D
- Job Coating
- Customized Production Solutions

DIARC® Coating Solutions include:
- Diamond coatings for tools and components
- Metal and Diamond coatings for decorative applications
- Carbon and metal nanocomposite coatings for functional applications
- Novel thin film materials for renewable energy technologies
Application R&D

New customer applications are developed in joint R&D projects.

The Application R&D includes:
- Coating Selection
- Testing
- Design
- Production Planning

DIARC Job Coating Service

The DIARC Job Coating Service is adapted to serve our customers both in small batches and large series.

Our Quality System is ISO 9001 compatible.

Production Solutions

The concept for customized production includes coating development, system design, construction and installation of the coating process and after sales service.

DIARC® Coating Systems

The DIARC Coating Systems are designed for industrial manufacturing of thin film coatings.

- Capable for serial coating of small and large parts
- Modular design of the systems
- Automated process
**DIARC® Diamond Coating**

The ta-C structured hydrogen free amorphous DIARC Diamond Coating is a thin film material with unique combination of properties:

- Low friction
- High hardness
- Excellent wear resistance
- Chemically inert
- High thermal conductivity

**DIARC® Metal Coatings**

DIARC® Method is applicable for processing of high quality metal thin film coatings.

- Metals and alloys can be deposited with the DIARC Process as single layers or gradient and multilayer structures
- The composition and the thickness of the layers can be freely selected

**DIARC® Nanocomposite Coatings**

Functional DIARC® Nanocomposite Coatings are solutions to improve and modify the surface properties of materials.

- Surface energy modification
- Antistatic and ESD protection
- Gas diffusion barriers
- Easy to clean and antibacterial surfaces
- Anti tarnish surfaces

**DIARC® Component Applications**

The advantages of DIARC® Coatings:

- Reduced energy consumption
- Extended service life
- Simpler construction
**DIARC® Tool Applications**

DIARC® Diamond Coating for tools – improved quality, efficiency and extended service life

- Applicable on all types of tools
- Superior for cutting and forming tools for aluminium and stainless steel
- Excellent for wood, paper and film and fibre material cutting tools

**DIARC® Decorative Applications**

New attractive appearances can be created with DIARC® Diamond and metal coatings

- Brilliant interference color effects can be created with thin layers of DIARC® Diamond Coating
- The DIARC® Diamond Coating is an excellent protection against wear and tear
- High quality precious metal coatings can be deposited on metal and plastic products

**DIARC® Applications in Energy Technology**

Novel thin film materials for renewable and emerging energy technologies are processed with the DIARC® Method

- DIARC® Coating Solutions are utilized on plasma facing surfaces in fusion reactors
- Coatings on fuel cell applications
- Improved efficiency of power transmission in energy production

**Milestones of DIARC-Technology**

- Fundamental R&D of DLC at Helsinki University 1987 - 1992
- Business study of DLC commercialization (Sitra, OK) 1992
- Company established 1993
- Technology and process development on DLC coatings
- Start up of R&D on first wall materials of Fusion Machine 1995
- Start up of coating service for tools and components 1996
- Commercialization of coating systems 1999 - 2002
- Focusing on Job Coating service and carbon based materials 1997
- Development of DLC coatings for lubricated conditions 2003
- R&D of Graphene 2008
- Second generation of FCAD Coating Systems 2010