# SoftSlide New dynamic sealing generation

















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# FRICTION MANAGEMENT SOLUTION

Low-friction and high performing dynamics seals to improve the energy efficiency and durability of industrial components



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# SoftSlide Technology Features

- · Introduces an advanced and comprehensive solution for molded rubber seals embedded with 3DMicro-Texture on the seal surface.
- · Improves seal performance by reducing static and dynamic friction, creating a reduction in friction and wear, and improving seal durability.
- · Is backed by advanced simulations to design the (\*) DDDR Micro-Texture pattern, followed by innovative 3DMulti Axis Laser System to engrave the DDDR seal pattern on molding tools thus providing the precise and optimized friction reduction.
- Does not require any changes to the rubber formulation or changes to the counter surfaces that comes on contact with the textured seal.
- · Is proven to reduce friction by up to 40% in harsh dynamic applications (backed by laboratory data).

(\*) For example: DDDR 30\_200\_200\_2.5 = Depth:30μm , Dimple Diameter:200μm, Distance:200μm, Roughness:2.50 Ra

# Benefits of SoftSlide Technology





Up to 15% energy savings depending on final application



Up to 40% friction reduction and wear



Extended life compared to non-textured dynamic seals

- Reduced leak and failure related energy efficiency losses.
- Reduced industrial investment. Texturing and coating a standard mould cost less than 25.000€ and no line modifications are needed, only the implementation of specific quality control procedures.
- Compatibility with most rubber, elastomer and plastic technologies, including low friction polymers and complex seal designs.
- Compatible with existing moulds.
- Quick return of investment, an initial 6€ investment may result in 540 € life cycle cost analysis savings.

## SoftSlide consortium and roles of every partner

#### ML ENGRAVING

We are specialist in laser engra-ving and laser texturing on moulds for design new seals.

#### **ITAINNOVA**

We are specialist in characterization of demoulding processes and modelling of seal functional behavior.

### **LUH University**

We are specialist in experimental and model based research on dynamics and tribology for seals.

#### ReAgent

We are specialist on the **optimization and industrial scale-up** of the **sol-gel release coatings** for demoulding.

#### SKM Aeronautics

We are specialist in **producing** molded and injected seals for different industrial sectors.

#### · Your Company ·

Discover how SoftSlide's technology can help your factory to save energy, to make more durable products and to be more competitive.

#### Useful in various industrial and aeronautics applications



AUTOMOTIVE

Brake systems, engines



CONSTRUCTION

Hydraulic pumps and motors



FARMING

Hydraulic actuators, engines



OIL&GAS

Hydraulic pumps and motors



AEROSPACE

Hydraulic actuators, turbines



MARINE

Hydraulic actuators, engines



MINING

Hydraulic pumps and motors



WASTE TREATMENT

Hydraulic and pneumatic actuators