

# Cost-Effective Low Friction Seals

by  
Texturing during  
Moulding Technology

TDM-SEALS



[www.tdm-seals.eu](http://www.tdm-seals.eu)



## What is TDM-SEALS?

A seal is a device that joins mechanisms together preventing leakage or mixing of fluids under different working pressures.

There is clear and growing demand for higher performance “zero-leak” seals in the sector of plastic and rubber seals, the hydraulic and pneumatic equipment industry together with the automotive industry being the largest industrial markets.

TDM-SEALS is a novel production process for the fabrication of low-friction plastic and rubber seals at competitive prices. By using surface texturing of the components during the moulding a reduction in the seal dynamic friction of >20% can be achieved.

In addition the production process for surface textured seals is optimised by reducing the production-cycle time related to demoulding difficulties. To reach this aim a novel ceramic coating for the moulds is being developed.

## What is new?

- Cost-effective production mechanism for the fabrication of moulded seals with a reduction (>20%) in their dynamic friction
- Reduced production costs related to the demoulding process by developing ceramic coatings that reduce (>30%) the adherence elastomer-mould
- Opening access to new markets of sealing solutions for highly demanding applications so enabling SMEs to gain a competitive advantage

## Benefits

**Affordable low friction sealing solutions that decrease their operational cost**

**Affordable sealing solutions that reduce their energy consumption**

**Affordable sealing solutions with enhanced tribological properties reducing the risk of leakages**

### Partners

