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MouldTex advances mould-texturing for friction-optimised rubber parts

ERJ STAFF



EU consortium now offering services to mould-makers as well as to manufacturers and end-users of rubber seals

Oyonnax, France – EU backed-project MouldTex has developed technology to micro-structure moulds for the high-volume manufacture of surface-textured rubber parts requiring optimised friction properties.

Dynamic seals and gaskets are products are produced in billions of units for use in a wide variety of industries, including automotive, medical, oil & gas, wind power and food processing.

But while the parts perform critical functions in motors, engines, hydraulic and pneumatic equipment, their low economic value discourages investment in cutting-edge innovation, according to MouldTex.

However, improving their wear and friction characteristic can greatly impact performance and lifetime in numerous mechanical assemblies, while also minimising costly maintenance, its statement explained.

Moreover, it noted, up to 40% of fuel energy can be lost in mechanical friction, particularly in piston assemblies, engine bearings and at sealing interfaces.

MouldTex combines expertise from Italy, Spain, Germany, Hungary, France, Greece and Israel to develop new seals with reduced friction characteristics and longer lifetime in a cost-effective way.

The consortium comprises three academic partners – Itainnova, Leibniz University Hannover and the Foundation for Research & Technology Hellas – four PMEs – SKM Aeronautics, O.RP Stampi, ML Engraving and Optimal Optik – and competitiveness cluster Polymeris.

Areas of expertise include: software for modelling surface texture and mould-tool design; automated laser system for applying micro- texture patterns to mould surfaces; moulding and de-moulding using textured moulds; and optical inspection of surface texture patterns.

MouldTex is now offering services to seals end-users seeking to improve your products performance; mould makers researching new moulds for rubber parts; and seals producers, exploring new products.

“We diagnose with you your needs according to your use case,” stated MouldTex. “Our expert team will help you to design the perfect micro pattern to reduce or increase friction on rubber products.

“We qualify and validate our solutions thanks to mould and seal prototypes. Once we find the perfect fit, we can produce for you your new rubber parts or your moulds or simply give you the technical plans for your new mould parts.”

Inline Play

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