

FACT SHEET

Bonded pistons – Special radial dynamic gaskets for automatic transmissions



Innovative design – maximum reliability
Composite pistons made by ElringKlinger

In the automatic transmission the bonded pistons close and open the clutch of wheelsets for switching into different gears. ElringKlinger supplies various series-produced bonded pistons for vehicle transmission systems, innovative design, first-class hysteresis properties and outstanding reliability are key characteristics. One of the unique features of ElringKlinger bonded pistons is the extremely smooth surface which leads to an efficient transmission management and high-precision gear shifting.

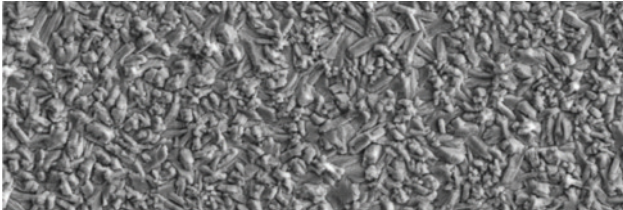
Technology

ElringKlinger manufactures bonded pistons entirely in-house with highest quality standards. The development of materials, simulation, design, surface treatment, phosphating-line, rubber injection molding process, post-curing process, visual control by an operator and packaging – everything from a single source.

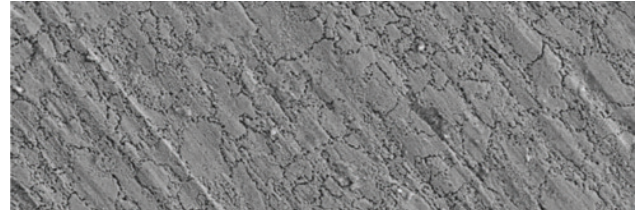
ADVANTAGES OF INJECTION MOLDING

- + Better adhesion due to higher cavity pressures and a higher melt temperature leading to a more homogeneous cross linking of the rubber
- + No bumping necessary → better dimensional results
- + High process reliability due to better mould ventilation (optimized filling of the cavity, micro vents & improved vacuum sealing)

EXAMPLE OF DIFFERENT SURFACE TREATMENT



Zink Manganese Phoscoating + Spray Coated Primer
10 µm



EK Low friction metal treatment and primer system
10 µm

Benefits

- + Captive fitting of separate sealing element feasible
- + Tribologically enhanced surface for low hysteresis
- + Manufacturing of bonded pistons entirely in-house with full traceability



ELRINGKLINGER – YOUR PARTNER FOR BONDED PISTONS

Product Development (Design, Engineering and Simulation) – Process Development – Tool Shop – Tool Sampling/Prototyping – Testing – Change-Management – Series Production – Part Measurement

YOUR CONTACT

ElringKlinger AG
Phone +49 7123 724-0
E-mail info@elringklinger.com

ElringKlinger AG | Max-Eyth-Straße 2 | 72581 Dettingen/Erms | Germany
www.elringklinger.com

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