Bonded pistons – Special radial dynamic gaskets for automatic transmissions

**GENERAL FUNCTION**

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
- EK Low friction metal treatment and primer system

10 µm 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


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