


**PI 1575**

 For technical personnel only!  
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# PRODUCT INFORMATION

## ENGINE BEARINGS WITH POLYMER COATING

European car manufacturers want to reduce the average CO<sub>2</sub> emissions of their passenger cars by 95 g/km by 2020. In the field of engine technology, some of the options being explored include start-stop technology and sailing mode. The new generation of engine bearings from Kolbenschmidt contributes to cutting CO<sub>2</sub> emissions to their target level. Motorservice now stocks these bearing sets as spare parts.

### CHARACTERISTICS

Up until now, the aluminium alloys have mainly been used as bearing metals in dual-substance bearings. In this scenario, the steel back simply performs the role of ensuring a reliable fit in the housing. The aluminium alloy serves as the bearing metal, making it the interacting sliding partner of the shaft, which has to perform all of the engine bearing's other tasks.

The new engine bearings have an additional polymer sliding layer, so the bearing metal and the polymer coating can perform different tasks. After all, adaptability, wear resistance and load capacity all place extremely different demands on the system.

A specially developed aluminium alloy containing silicon is used as the bearing metal; this is both extremely tough and wear-resistant. Using a complicated application process, a polymer coating is applied to this aluminium alloy. The coating consists of a temperature and dirt-resistant polyamide resin that contains a high level of friction and wear-reducing bulking agents.

Thanks to the combination of metal and polymer components, the new product is 20% stronger than conventional dual-material bearings while also ensuring greater wear resistance and less friction.



- 01** Steel back
- 02** AlSnSi bearing metal
- 03** Polymer sliding layer

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\* The reference numbers given are for comparison purposes only and must not be used on invoices to the consumer.