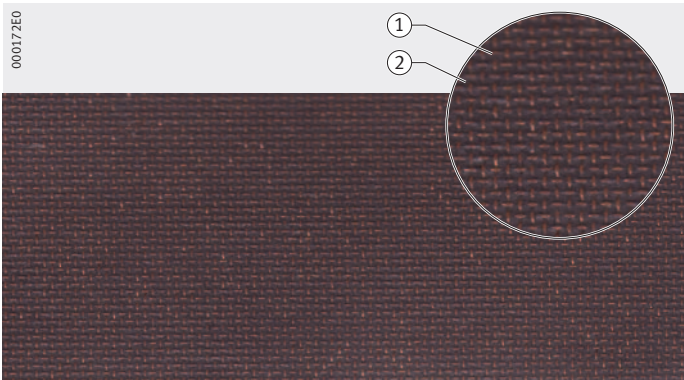


# Maintenance-free plain bearing material E621

E621 is the new plain bearing material of Schaeffler Group Industrial for maintenance-free film bearings. The metal/polymer composite consists of a bronze lattice structure that is filled with a dry lubricant made from polytetrafluorethylene (PTFE) with embedded chemically non-reactive additives.

**Structure** The material consists of a lattice structure and a sliding layer, *Figure 1*.



- ① Lattice structure
- ② Sliding layer

*Figure 1*  
Maintenance-free  
plain bearing material E621

The PTFE sliding layer is rolled into and sintered into the lattice structure. The lattice thus functions as both a carrier and a sliding layer.

**Lattice structure and sliding layer**

| Chemical element            | Proportion of mass<br>w % |               |
|-----------------------------|---------------------------|---------------|
|                             | Lattice structure         | Sliding layer |
| Tin Sn                      | 6                         | –             |
| Copper Cu                   | 94                        | –             |
| Polytetrafluorethylene PTFE | –                         | 86            |
| Fillers                     | –                         | 14            |

**Film thickness** The plain bearing material is available in a film thickness of 0,5 mm.

**Application** The lead-free material conforms to the regulations for lead-free plain bearings. It is maintenance-free throughout its life and can be used in the temperature range from –200 °C to +260 °C.

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