



- 1 Grate with PermaCLEAN<sup>PLAS</sup>® coating:  
Contaminated with paint and partly cleaned  
using high pressure water technology.

## LOW PRESSURE PLASMA TECHNOLOGY PERMACLEAN<sup>PLAS</sup>® COATINGS

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PermaCLEAN<sup>PLAS</sup>® coatings were developed by Fraunhofer IFAM. These innovative coatings have a very special effect: Components applied with a PermaCLEAN<sup>PLAS</sup>® coating have permanent paint release properties. Subsequent paint contamination can thus be very easily removed without damaging the component surface. The thickness of the coatings is less than ca. 0.5 µm.

### Example application

Galvanized floor grates are widely used in paint shops and after longer periods of time become covered with thick layers of paint which are difficult to remove. Applying a layer of PermaCLEAN<sup>PLAS</sup>® coating to the grates prior to their use enables any subsequent paint deposits on the grate surface to be readily removed with high

pressure water technology at less than 500 bar, which is beneficial for both the component and the environment. The service life of the grates is increased several-fold because they do not need to be heated or grit blasted to remove the paint deposits. This saves considerable time and money. With a customized high pressure water treatment systems also on-site (in-situ) paint removal from components is allowed.

Long-term tests in a paint shop have shown that the coated grates still have effective paint release properties after 2 years and ca. 400 cleaning cycles with high pressure water (250 to 2500 bar). The paint release effect of the PermaCLEAN<sup>PLAS</sup>® coating can be adapted for specific applications. The PermaCLEAN<sup>PLAS</sup>® coatings are environmentally friendly.

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## Information about PermaCLEAN<sup>PLAS</sup>® coatings

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- | Suitable substrates:
  - Metals, plastics, and composite materials
- | Chemical properties:
  - Good resistance to acids/bases (pH 2-12) and organic solvents
  - Paint release effect for many paint systems (water-based, solvent-based)
- | Physical properties:
  - Heat resistance up to 300 °C for long exposure and up to 350 °C for short exposure
  - Colorless, transparent

Further information about PermaCLEAN<sup>PLAS</sup>® coatings: [www.permaclean-plas.eu](http://www.permaclean-plas.eu).