

**GERRESHEIMER**

Metal-free glass syringes  
for the most sophisticated,  
biotechnologically  
manufactured medications



# New!

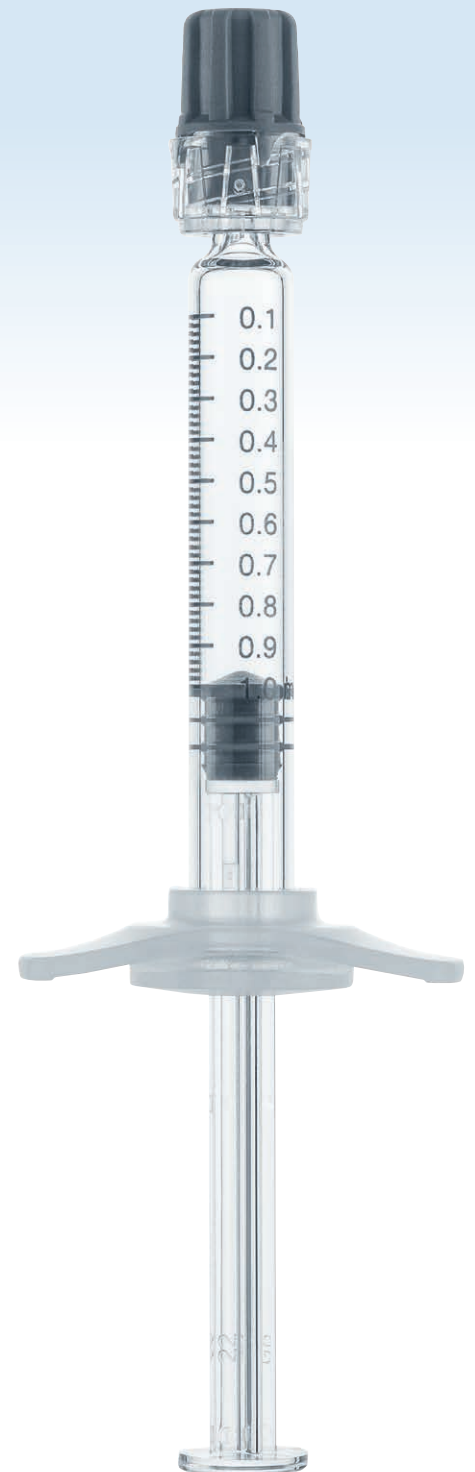
## Metal-free glass syringe

### Metal-free technology registered for patent for residue-free cone shaping

One problem associated with syringe use is that traces of tungsten or other metals occasionally leave residue behind in the bore when the syringe cone is shaped. Especially for medications based on biotechnologically manufactured active ingredients, our customers therefore require pre-fillable syringes that ideally exclude the possibility of contamination with metal. With the development of an innovative production technology registered for patent, we have been able to address this requirement and create a metal-free 1 ml long Gx RTF® Luer lock syringe that is ready for series production.

This process can also be transferred to other Luer lock syringe sizes or to Luer cone syringes of various sizes at any time. The pin used to shape the cone with our new technology isn't made of conventional tungsten or an alternative metal, but of a special ceramic. External studies confirm that we can manufacture residue-free syringes for the packaging of especially sophisticated medications with this new technology.

The Fresenius Institute conducted a study confirming that no ceramic residue can be detected in the syringe. A biocompatibility study also verifies the non-cytotoxicity of the ceramic material.



### Metal-free Gx RTF® glass syringe

- The pin used to shape the cone is made of a special ceramic
- 1 ml long Gx RTF® Luer lock syringe ready for series production
- The process can be transferred to other Luer lock syringe sizes or to Luer cone syringes of various sizes at any time
- The Fresenius Institute conducted a study confirming that no ceramic residue can be detected in the syringe
- Non-cytotoxic according to ISO 10993-5

Gerresheimer Bünde GmbH

Phone: +49 5223 164 0  
info-syringes@gerresheimer.com

**GERRESHEIMER**