


# Schedule of Accreditation

issued by

## United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 <p><b>1994</b> Accredited to ISO/IEC 17025:2017</p>	<p align="center"><b>Glass Technology Services Ltd</b></p> <p align="center"><b>Issue No: 062      Issue date: 22 January 2025</b></p>	
	<p><b>9 Churchill Way</b> <b>Chapelton</b> <b>Sheffield</b> <b>S35 2PY</b></p>	<p><b>Contact: Amy Ashton</b> <b>Tel: +44 (0)114 290 1801</b> <b>Fax: +44 (0)114 290 1851</b> <b>E-Mail: a.ashton@glass-ts.com</b> <b>Website: www.glass-ts.com</b></p>

**Testing performed at the above address only**

### DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
GLASS and GLASS PRODUCTS	<u>Chemical Tests</u>	
	Lead and Cadmium release from glass surface	Documented In-House Method QP16 using atomic absorption spectrometry and ICP-OES techniques based on ISO 7086-1:2019 ISO 7086-2:2000 BS 6748:1986 + A1:2011 BS EN 1388-2:1996 ASTM C927-80(2019) AOAC - 973.32 (2004)
	Quantification of elements/oxides	Documented In-House Method QP08 using X-ray Fluorescence (XRF) technique
	Silica (SiO <sub>2</sub> ) Aluminium Oxide (Al <sub>2</sub> O <sub>3</sub> ) Iron (III) Oxide (Fe <sub>2</sub> O <sub>3</sub> ) Calcium Oxide (CaO) Magnesium Oxide (MgO) Sodium Oxide (Na <sub>2</sub> O) Potassium Oxide (K <sub>2</sub> O) Titanium Dioxide (TiO <sub>2</sub> ) Zirconium Dioxide (ZrO <sub>2</sub> ) Chromium (III) Oxide (Cr <sub>2</sub> O <sub>3</sub> ) Sulphur Trioxide (SO <sub>3</sub> )	
	Loss on drying and Loss on Ignition	Documented In-House Method QP10
	Hydrolytic resistance of glass containers for pharmaceutical use	Documented In-House Method, QP15 based on USP NF 2024 Issue 3 chapter 660 European Pharmacopoeia Ph.Eur. Ed.11.6 method 3.2.1
	Imaging identification and comparative analysis	Documented In-House Method QP07 using SEM Techniques, including EDX analysis



Accredited to  
ISO/IEC 17025:2017

**Schedule of Accreditation**  
issued by  
**United Kingdom Accreditation Service**  
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

**Glass Technology Services Ltd**  
**Issue No: 062 Issue date: 22 January 2025**

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
GLASS and GLASS PRODUCTS (cont'd)	<u>Chemical Tests (cont'd)</u>	
GLASS MAKING MINERALS (eg sand, limestone, dolomite, cullet, feldspar, blast furnace slag, nepheline syenite, synthetic diopside, alumina and aluminosilicate refractories)	Elemental/Oxide Analysis  Sodium Oxide (Na <sub>2</sub> O) Magnesium Oxide (MgO) Aluminium Oxide (Al <sub>2</sub> O <sub>3</sub> ) Silica (SiO <sub>2</sub> ) Phosphorus Pentoxide (P <sub>2</sub> O <sub>5</sub> ) Potassium Oxide (K <sub>2</sub> O) Calcium Oxide (CaO) Titanium Dioxide (TiO <sub>2</sub> ) Manganese Oxide (MnO) Chromium (III) Oxide (Cr <sub>2</sub> O <sub>3</sub> ) Strontium Oxide (SrO) Iron (III) Oxide (Fe <sub>2</sub> O <sub>3</sub> ) Barium Oxide (BaO)	Documented In-House Method QP09 quantification of elements/oxides using X-ray fluorescence techniques (XRF)
GLASSWARE PRODUCTS including STOPPERS and CAPS	<u>Dimensional Tests</u>  Length 0 to 300 mm with an expanded measurement uncertainty of 0.032 mm at $k = 2.03$  Length 0 to 300 mm with an expanded measurement uncertainty of 0.28 mm at $k = 2.0$  Length 0 to 300 mm with an expanded measurement uncertainty of 0.10 mm at $k = 2.0$  Length 0 to 9 mm, using the Hall effect thickness gauge, with an expanded uncertainty of 0.62 mm at $k = 2.36$  Verticality 0 to 10 mm with an expanded measurement uncertainty of 0.34 mm at $k = 2.2$  <u>Volumetric Tests</u>  Volumetric capacity	Documented In-House Method QP32 using optical profile methods  Documented In-House Method QP02 - Appendix 1G  Documented In-House Method QP02 - Appendix 1B  Documented In-House Method QP02 - Appendix 1E  Documented In-House Method QP49 based on BS EN 29008:1994  Documented In-House Method QP48 based on TEC6 (May 2022)



1994

Accredited to  
ISO/IEC 17025:2017

**Schedule of Accreditation**  
issued by  
**United Kingdom Accreditation Service**  
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

**Glass Technology Services Ltd**  
**Issue No: 062 Issue date: 22 January 2025**

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
GLASS PRODUCTS (cont'd)	<u>Physical Tests</u>  <u>Volumetric Tests</u>  Volumetric capacity  Thermal shock (Glassware)  Thermal shock (Containers)  Strain characteristics  Glass failure analysis  Fragment analysis of glass	Documented In-House Method QP48 based on TEC6 (May 2022)  Documented In-House Method QP33 based on BS EN 1183:1997  ASTM C149-14 BS EN ISO 7459 (2004)  Documented In-House Method QP17 based on ASTM C148 17 using an illumination field >300 cdm-2  Documented In-House Method QP18  Documented In-House Method QP21
Sodium Carbonate	Total alkalinity  <u>Mechanical Tests</u>  Resistance to Vertical Load (Compression)  Impact testing of glass  Pressure testing of glass	BS 6070-1:1981(2017) ISO 740:1976  BS EN ISO 8113:2004 Documented In-House Method QP39  Documented In-House Method QP19  Documented In-House Method QP20 based on ASTM C147-86(2015)



Accredited to  
ISO/IEC 17025:2017

**Schedule of Accreditation**  
issued by  
**United Kingdom Accreditation Service**  
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

**Glass Technology Services Ltd**  
**Issue No: 062   Issue date: 22 January 2025**

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
GLASS and GLASS PRODUCTS  GLASS/NON POROUS MATERIAL	<u>Physical Tests</u>  Density by buoyancy	Documented In-House Method QP66 based on ASTM C693-93(2019)
END		