

Certificate of Conformity



Article no.	Retrace Code/Batch/Lot no.	Date of Manufacture
231700211	PY030525C	2025-07-29

Article description
NMR Tube P Type

DURAN® Product Certificate

DURAN® NMR Tubes are manufactured with extreme precision and to tight tolerances. As the popular 7" standard length (metric equivalent 178.00 mm) is used, DURAN® NMR Tubes can be used in any standard instrument. Their good wall thickness distribution and high degree of straightness (-> low bow) enable short processing times with accurate and reliable results to be achieved.

Dimensions and Tolerances

Dimension	Tolerance
Length:	178.0 ± 0.5 mm
Outside diameter:	4.97 ± 0.025 mm
Inside diameter:	4.20 ± 0.025 mm
Straightness:	±0.03 mm

Production and inspection

The articles listed under "article number" are hereby confirmed to have been produced using a quality system conforming to ISO 9001 and comply with the DWK Life Sciences quality standards. The specified glass products are manufactured from DURAN® glass.

DURAN® glass is classified as a Borosilicate 3.3 glass as defined by ISO 3585:1998. Prior to delivery, all production batches are subjected to statistical quality inspections corresponding to the standard DIN ISO 2859 -1. We herewith confirm that this lot passed the statistical quality inspection according to ISO 2859-1.

DURAN® – Glass type 1 Composition

SiO ₂	B ₂ O ₃	Na ₂ O/K ₂ O	Al ₂ O ₃
81 %	13 %	4 %	2 %

DURAN® - Chemical and physical properties

Coefficient of expansion	Acid resistance	Acid resistance	Hydrolytic resistance	Alkalis resistance
3.3 x 10 ⁻⁶ K ⁻¹	Class S 1 (DIN 12116)	≤ 100 µg Na ₂ O per dm ² (ISO 1776)	Class HGB 1 (ISO 719) / Class HGA 1 (ISO 720)	Class A 2 (ISO 695)

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Directive Conformity

Due to its high hydrolytic resistance, DURAN® is a neutral glass respectively glass type I and consequently fulfills the requirements of the following pharmacopoeias:

- USP <660> Containers - Glass
- EP (3.2.1) Glass containers for pharmaceutical use

The arsenic content in DURAN® Glass is less than 0.1 ppm acc. to EP (3.2.1) and 0.1 µg per g acc. USP <660> / Arsenic <211>.

DURAN® is compliant with JP <7.01> Test for Glass Containers for Injections (Soluble Alkali).

DURAN® is certified for food applications.

All confirmations and information in this certificate apply solely to goods originating from DURAN®. For further processed products these details are not binding.

Certified by: 
Mariska Jefferson
Quality Manager

Download date: 2026-04-02

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