

## *Wilmad - Your One Stop NMR Shop*

100% Tested Precision Tools  
Because Nothing is More  
Important Than Your Results



## Wilmad 5mm OD Thin Walled Economy NMR Tubes

Designed for routine use in modern NMR spectrometers, Wilmad Economy NMR Tubes are guaranteed to fit 100% in any spinner turbine and yield zero NMR background.

- Best OD tolerance in the industry; 30% thicker wall than competitive products
- 100% visual and physical inspection ensures quality, including dimensions and surface defects
- For experiments with small organic molecules (Molecular Weight ~500) at ambient temperatures only



Cat. No.	Model	MHz RATING	LENGTH	O.D. (mm)	CONCENTRICITY (µm)	CAMBER (µm)	I.D. (mm)	WALL THICKNESS (mm)
16-800-273	WG-1206-7-5	100	7"	4.947 ±0.019	51	50	4.1	0.43
16-800-274	WG-1206-8-5	100	8"	4.947 ±0.019	51	50	4.1	0.43
16-800-318	WG-1226-7-5	300	7"	4.947 ±0.019	51	13	4.1	0.43
16-800-319	WG-1226-8-5	300	8"	4.947 ±0.019	51	13	4.1	0.43
16-800-405	WG-1228-7-5	400	7"	4.947 ±0.019	13	13	4.1	0.43
16-800-406	WG-1228-8-5	400	8"	4.947 ±0.019	13	13	4.1	0.43
16-800-443	WG-1235-7-5	500	7"	4.947 ±0.019	6	6	4.1	0.43
16-800-444	WG-1235-8-5	500	8"	4.947 ±0.019	6	6	4.1	0.43
16-800-471	WG-1241-7-5	600	7"	4.947 ±0.019	3.8	3.8	4.1	0.43
16-800-472	WG-1241-8-5	600	8"	4.947 ±0.019	3.8	3.8	4.1	0.43
16-800-489	WG-1242-7-5	700	7"	4.947 ±0.019	2.5	3.8	4.1	0.43
16-800-490	WG-1242-8-5	700	8"	4.947 ±0.019	2.5	3.8	4.1	0.43
16-800-290	WG-1208-7-5	200	7"	4.947 ±0.019	51	25	4.1	0.43
16-800-291	WG-1208-8-5	200	8"	4.947 ±0.019	51	25	4.1	0.43

## Wilmad Thin Walled High Throughput NMR Tubes

Wilmad Thin Walled High Throughput NMR Tubes have an average camber of 60 microns to guarantee the SNR of the spectrum for small molecule (MW<250) samples up to 600 MHz.

- Best OD tolerances in the industry
- Guaranteed to fit tightly in the spinner turbine
- Designed for routine use in most low to mid field NMR spectrometers



Cat. No.	Model	MHz RATING	LENGTH (mm)	O.D. (mm)	AVERAGE CAMBER (µm)	WALL THICKNESS (mm)	PACK
16-800-161	WG-1000-4-SJ	600	103.5	4.947 ±0.019	60	0.43	100
16-800-495	WG-1000-7	High-Throughput	178	4.947 ±0.019	60	0.43	100
16-800-496	WG-1000-7-50	High-Throughput	178	4.947 ±0.019	60	0.43	50
16-800-208	WG-1000-7-SJ	600	178	4.947 ±0.019	60	0.43	100
16-800-497	WG-1000-8	High-Throughput	203	4.947 ±0.019	60	0.43	100
16-800-498	WG-1000-8-50	High-Throughput	203	4.947 ±0.019	60	0.43	50

## Precision NMR Tubes

To maximize SNR, Precision NMR Tubes have minimal paramagnetic impurities that would impact shimming. Tight ID and OD tolerance as small as 0.0065mm accommodates Wilmad inserts.



Precision

- 10% more filling factor than economy tubes
- For temperatures up to 230°C, and within a temperature step of 120°C
- Ideal for experiments requiring critical shimming quality (high/ultrahigh field, non-spinning, multi-dimensional, multi-nuclei, DNP experiments and studies involving biological samples)

## Wilmad 5mm OD Thin Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D. (mm)	CONCENTRICITY (μm)	CAMBER (μm)	I.D. (mm)	WALL THICKNESS (mm)
16-800-264	505-PS-7-5	100	7"	4.9635±0.0065	76	51μm	4.21±0.13mm	0.38mm
16-800-265	505-PS-8-5	100	8"	4.9635±0.0065	76	51μm	4.21±0.13mm	0.38mm
16-800-266	505-PS-9-5	100	9"	4.9635±0.0065	76	51μm	4.21±0.13mm	0.38mm
16-800-284	506-PP-7-5	200	7"	4.9635±0.0065	51	51μm	4.2065±0.0065mm	0.38mm
16-800-285	506-PP-8-5	200	8"	4.9635±0.0065	51	51μm	4.2065±0.0065mm	0.38mm
16-800-286	506-PP-9-5	200	9"	4.9635±0.0065	51	51μm	4.2065±0.0065mm	0.38mm
16-800-298	507-PP-7-5	300	7"	4.9635±0.0065	51	25μm	4.2065±0.0065mm	0.38mm
16-800-299	507-PP-8-5	300	8"	4.9635±0.0065	51	25μm	4.2065±0.0065mm	0.38mm
16-800-300	507-PP-9-5	300	9"	4.9635±0.0065	51	25μm	4.2065±0.0065mm	0.38mm
16-800-342	526-PP-7-5	350	7"	4.9635±0.0065	51	13μm	4.2065±0.0065mm	0.38mm
16-800-343	526-PP-8-5	350	8"	4.9635±0.0065	51	13μm	4.2065±0.0065mm	0.38mm
16-800-344	526-PP-9-5	350	9"	4.9635±0.0065	51	13μm	4.2065±0.0065mm	0.38mm
16-800-381	527-PP-7-5	400	7"	4.9635±0.0065	25	25μm	4.2065±0.0065mm	0.38mm
16-800-382	527-PP-8-5	400	8"	4.9635±0.0065	25	25μm	4.2065±0.0065mm	0.38mm
16-800-383	527-PP-9-5	400	9"	4.9635±0.0065	25	25μm	4.2065±0.0065mm	0.38mm
16-800-432	528-PP-7-5	500	7"	4.9635±0.0065	25	13μm	4.2065±0.0065mm	0.38mm
16-800-433	528-PP-8-5	500	8"	4.9635±0.0065	25	13μm	4.2065±0.0065mm	0.38mm
16-800-434	528-PP-9-5	500	9"	4.9635±0.0065	25	13μm	4.2065±0.0065mm	0.38mm
16-800-468	535-PP-7-5	600	7"	4.9635±0.0065	13	6μm	4.2065±0.0065mm	0.38mm
16-800-469	535-PP-8-5	600	8"	4.9635±0.0065	13	6μm	4.2065±0.0065mm	0.38mm
16-800-470	535-PP-9-5	600	9"	4.9635±0.0065	13	6μm	4.2065±0.0065mm	0.38mm
16-800-492	541-PP-7-5	800	7"	4.9635±0.0065	3.8	3.8μm	4.2065±0.0065mm	0.38mm
16-800-493	541-PP-8-5	800	8"	4.9635±0.0065	3.8	3.8μm	4.2065±0.0065mm	0.38mm
16-800-243	542-PP-7-5	1000	7"	4.9635±0.0065	3.8	3.8μm	4.2065±0.0065mm	0.38mm
16-800-244	542-PP-8-5	1000	8"	4.9635±0.0065	3.8μm	3.8μm	4.2065±0.0065mm	0.38mm

## Wilmad 5mm OD Step-Down Ultra-Thin Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D. (mm)	CONCENTRICITY (μm)	CAMBER (μm)	I.D. (mm)	WALL THICKNESS (mm)
16-800-360	547-PPT-7-5	350	7"	4.9635±0.0065	51	13	4.4965±0.0065	0.24
16-800-361	547-PPT-8-5	350	8"	4.9635±0.0065	51	13	4.4965±0.0065	0.24
16-800-362	547-PPT-9-5	350	9"	4.9635±0.0065	51	13	4.4965±0.0065	0.24
16-800-410	550-PPT-7-5	400	7"	4.9635±0.0065	38	13	4.4965±0.0065	0.24
16-800-411	550-PPT-8-5	400	8"	4.9635±0.0065	38	13	4.4965±0.0065	0.24
16-800-412	550-PPT-9-5	400	9"	4.9635±0.0065	38	13	4.4965±0.0065	0.24
16-800-476	555-PPT-7-5	600	7"	4.9635±0.0065	13	6	4.4965±0.0065	0.24
16-800-477	555-PPT-8-5	600	8"	4.9635±0.0065	13	6	4.4965±0.0065	0.24
16-800-478	555-PPT-9-5	600	9"	4.9635±0.0065	13	6	4.4965±0.0065	0.24

## Wilmad 3mm OD Thin Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O. D. (mm)	CONCENTRICITY (μm)	CAMBER (μm)	I. D. (mm)	WALL THICKNESS (mm)
16-800-281	305-PS-7-5	200	7"	2.9935±0.0065	76	51	2.413±0.13	0.29
16-800-282	305-PS-8-5	200	8"	2.9935±0.0065	76	51	2.413±0.13	0.29
16-800-283	305-PS-9-5	200	9"	2.9935±0.0065	76	51	2.413±0.13	0.29
16-800-292	307-PP-7-5	300	7"	2.9935±0.0065	51	25	2.4195±0.0065	0.29
16-800-293	307-PP-8-5	300	8"	2.9935±0.0065	51	25	2.4195±0.0065	0.29
16-800-294	307-PP-9-5	300	9"	2.9935±0.0065	51	25	2.4195±0.0065	0.29
16-800-375	327-PP-7-5	400	7"	2.9935±0.0065	25	25	2.4195±0.0065	0.29
16-800-376	327-PP-8-5	400	8"	2.9935±0.0065	25	25	2.4195±0.0065	0.29
16-800-377	327-PP-9-5	400	9"	2.9935±0.0065	25	25	2.4195±0.0065	0.29
16-800-429	328-PP-7-5	500	7"	2.9935±0.0065	25	13	2.4195±0.0065	0.29
16-800-430	328-PP-8-5	500	8"	2.9935±0.0065	25	13	2.4195±0.0065	0.29
16-800-431	328-PP-9-5	500	9"	2.9935±0.0065	25	13	2.4195±0.0065	0.29
16-800-464	335-PP-7-5	600	7"	2.9935±0.0065	13	6	2.4195±0.0065	0.29
16-800-465	335-PP-8-5	600	8"	2.9935±0.0065	13	6	2.4195±0.0065	0.29
16-800-466	335-PP-9-5	600	9"	2.9935±0.0065	13	6	2.4195±0.0065	0.29

## Wilmad 5mm OD Ultra-Thin Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O. D. (mm)	CONCENTRICITY (μm)	CAMBER (μm)	I. D. (mm)	WALL THICKNESS (mm)
16-800-320	537-PPT-7-5	300	7"	4.9635±0.0065	51	25	4.4965±0.0065	0.24
16-800-321	537-PPT-8-5	300	8"	4.9635±0.0065	51	25	4.4965±0.0065	0.24
16-800-322	537-PPT-9-5	300	9"	4.9635±0.0065	51	25	4.4965±0.0065	0.24
16-800-407	540-PPT-7-5	400	7"	4.9635±0.0065	25	13	4.4965±0.0065	0.24
16-800-408	540-PPT-8-5	400	8"	4.9635±0.0065	25	13	4.4965±0.0065	0.24
16-800-409	540-PPT-9-5	400	9"	4.9635±0.0065	25	13	4.4965±0.0065	0.24
16-800-473	545-PPT-7-5	600	7"	4.9635±0.0065	13	6	4.4965±0.0065	0.24
16-800-474	545-PPT-8-5	600	8"	4.9635±0.0065	13	6	4.4965±0.0065	0.24
16-800-475	545-PPT-9-5	600	9"	4.9635±0.0065	13	6	4.4965±0.0065	0.24

## Wilmad 5mm OD Medium Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O. D. (mm)	CONCENTRICITY (μm)	CAMBER (μm)	I. D. (mm)	WALL THICKNESS (mm)
16-800-275	503-PS-7-5	100	7"	4.9635±0.0065	76	51	3.43±0.13	0.77
16-800-276	503-PS-8-5	100	8"	4.9635±0.0065	76	51	3.43±0.13	0.77
16-800-277	503-PS-9-5	100	9"	4.9635±0.0065	76	51	3.43±0.13	0.77
16-800-323	504-PP-7-5	300	7"	4.9635±0.0065	152	51	3.43±0.13	0.77
16-800-324	504-PP-8-5	300	8"	4.9635±0.0065	152	51	3.43±0.13	0.77
16-800-325	504-PP-9-5	300	9"	4.9635±0.0065	152	51	3.43±0.13	0.77
16-800-413	524-PP-7-5	400	7"	4.9635±0.0065	76	51	3.43±0.13	0.77
16-800-414	524-PP-8-5	400	8"	4.9635±0.0065	76	51	3.43±0.13	0.77
16-800-415	524-PP-9-5	400	9"	4.9635±0.0065	76	51	3.43±0.13	0.77

## Wilmad 5mm OD Heavy Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D. (mm)	CONCENTRICITY (μm)	CAMBER (μm)	I.D. (mm)	WALL THICKNESS (mm)
16-800-278	501-PS-7-5	100	7"	4.9635±0.0065	152	51	2.16±0.13	1.4
16-800-279	501-PS-8-5	100	8"	4.9635±0.0065	152	51	2.16±0.13	1.4
16-800-280	501-PS-9-5	100	9"	4.9635±0.0065	152	51	2.16±0.13	1.4
16-800-327	502-PP-7-5	300	7"	4.9635±0.0065	152	51	2.160±0.013	1.4
16-800-328	502-PP-8-5	300	8"	4.9635±0.0065	152	51	2.160±0.013	1.4
16-800-329	502-PP-9-5	300	9"	4.9635±0.0065	152	51	2.160±0.013	1.4
16-800-448	522-PP-7-5	500	7"	4.9635±0.0065	51	51	2.160±0.013	1.4
16-800-449	522-PP-8-5	500	8"	4.9635±0.0065	51	51	2.160±0.013	1.4
16-800-450	522-PP-9-5	500	9"	4.9635±0.0065	51	51	2.160±0.013	1.4

## Wilmad 10mm OD Thin Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D. (mm)	CONCENTRICITY (μm)	CAMBER (μm)	I.D. (mm)	WALL THICKNESS (mm)
16-800-287	513-1PP-7-5	200	7"	9.9935±0.0065	254	51	9.070±0.013	0.46
16-800-288	513-1PP-8-5	200	8"	9.9935±0.0065	254	51	9.070±0.013	0.46
16-800-289	513-1PP-9-5	200	9"	9.9935±0.0065	254	51	9.070±0.013	0.46
16-800-267	513-1PS-7-5	100	7"	9.9935±0.0065	254	51	8.90±0.13	0.55
16-800-268	513-1PS-8-5	100	8"	9.9935±0.0065	254	51	8.90±0.13	0.55
16-800-269	513-1PS-9-5	100	9"	9.9935±0.0065	254	51	8.90±0.13	0.55
16-800-304	513-3PP-8-5	300	8"	9.9935±0.0065	76	38	9.070±0.013	0.46
16-800-305	513-3PP-9-5	300	9"	9.9935±0.0065	76	38	9.070±0.013	0.46
16-800-387	513-5PP-7-5	400	7"	9.9935±0.0065	51	25	9.070±0.013	0.46
16-800-388	513-5PP-8-5	400	8"	9.9935±0.0065	51	25	9.070±0.013	0.46
16-800-389	513-5PP-9-5	400	9"	9.9935±0.0065	51	25	9.070±0.013	0.46
16-800-438	513-7PP-7-5	500	7"	9.9935±0.0065	38	13	9.070±0.013	0.46
16-800-439	513-7PP-8-5	500	8"	9.9935±0.0065	38	13	9.070±0.013	0.46
16-800-440	513-7PP-9-5	500	9"	9.9935±0.0065	38	13	9.070±0.013	0.46

## Wilmad 10mm OD Medium Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D. (mm)	CONCENTRICITY (μm)	CAMBER (μm)	I.D. (mm)	WALL THICKNESS (mm)
16-800-445	513-7PPM-7-5	200	7"	9.9935±0.0065	38	13	8.160±0.013	0.92
16-800-446	513-7PPM-8-5	200	8"	9.9935±0.0065	38	13	8.160±0.013	0.92
16-800-447	513-7PPM-9-5	200	9"	9.9935±0.0065	38	13	8.160±0.013	0.92

## Wilmad 10mm OD Heavy Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D. (mm)	CONCENTRICITY (μm)	CAMBER (μm)	I.D. (mm)	WALL THICKNESS (mm)
16-800-427	513-7PPH-7-5	450	7"	9.9935±0.0065	51	13	7.100±0.013	1.45
16-800-428	513-7PPH-8-5	450	8"	9.9935±0.0065	51	13	7.100±0.013	1.45
16-800-330	513-7PPH-9-5	450	9"	9.9935±0.0065	51	13	7.100±0.013	1.45

## Precision Quartz NMR Tubes

Wilmad Precision NMR Quartz Tubes have an extremely low thermal expansion rate and high tensile strength which is 14 times more robust during the cooling/heating process than precision glass tubes.

- To maximize SNR, these pure Quartz tubes have minimal paramagnetic impurities that would impact shimming
- Ideal for variable temperature experiments that have a temperature step over 120°C as well as experiments at temperatures up to 1300°C
- 100% inspection with multiple NIST traceable gauges and optical surface defect checks



## Wilmad 5mm OD Thin Walled Quartz NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D. (mm)	CONCENTRICITY (μm)	CAMBER (μm)	I.D. (mm)	WALL THICKNESS (mm)
16-800-336	507-PP-7QTZ-5	300	7"	4.936±0.0065	51	25	4.2065±0.0065	0.38
16-800-337	507-PP-8QTZ-5	300	8"	4.936±0.0065	51	25	4.2065±0.0065	0.38
16-800-338	507-PP-9QTZ-5	300	9"	4.936±0.0065	51	25	4.2065±0.0065	0.38
16-800-458	528-PP-7QTZ-5	500	7"	4.936±0.0065	25	13	4.2065±0.0065	0.38
16-800-459	528-PP-8QTZ-5	500	8"	4.936±0.0065	25	13	4.2065±0.0065	0.38
16-800-460	528-PP-9QTZ-5	500	9"	4.936±0.0065	25	13	4.2065±0.0065	0.38
16-800-483	535-PP-7QTZ-5	600	7"	4.936±0.0065	13	6	4.2065±0.0065	0.38
16-800-484	535-PP-8QTZ-5	600	8"	4.936±0.0065	13	6	4.2065±0.0065	0.38
16-800-485	535-PP-9QTZ-5	600	9"	4.936±0.0065	13	6	4.2065±0.0065	0.38

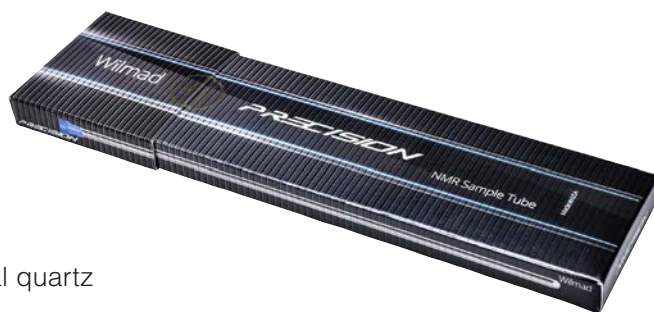
## Wilmad 10mm OD Thin Walled Quartz NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D. (mm)	CONCENTRICITY (μm)	CAMBER (μm)	I.D. (mm)	WALL THICKNESS (mm)
16-800-421	513-7PP-7QTZ-5	400	7"	9.9935±0.0065	38	13	9.070±0.013	0.46
16-800-422	513-7PP-8QTZ-5	400	8"	9.9935±0.0065	38	13	9.070±0.013	0.46
16-800-423	513-7PP-9QTZ-5	400	9"	9.9935±0.0065	38	13	9.070±0.013	0.46

## Wilmad Thin Walled Suprasil® NMR Tubes

Wilmad Precision NMR Suprasil® (Synthetic Quartz) Tubes are manufactured from the highest purity synthetic fused silica materials with <0.005ppm Fe<sub>2</sub>O<sub>3</sub> and outstanding optical characteristics in the deep UV to the near IR.

- Transmission rate from 190 nm to 2600 nm is well over 95% (10mm thickness) excluding reflection
- Similar thermal expansion rate and tensile strength as natural quartz
- Safe for experiments at temperatures up to 1300°C

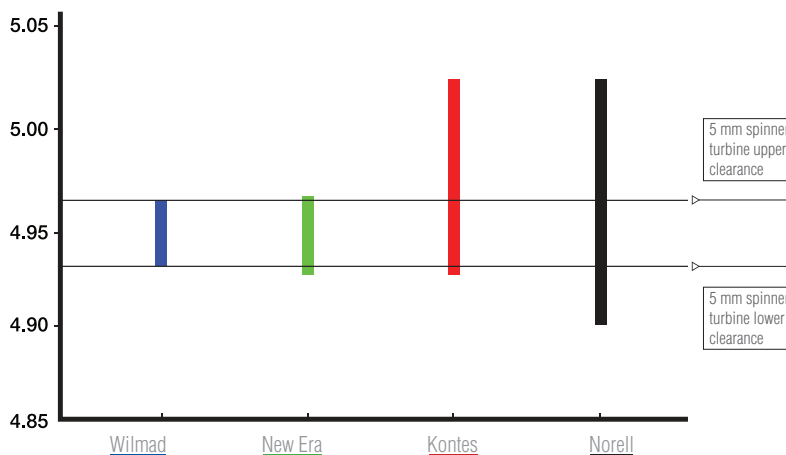


Cat. No.	Model	MHz RATING	LENGTH	O.D. (mm)	CONCENTRICITY (μm)	CAMBER (μm)	I.D. (mm)	WALL THICKNESS (mm)
16-800-339	507-PP-7SUP-5	300	7"	4.9635±0.0065	51	25	4.2065±0.0065	0.38
16-800-340	507-PP-8SUP-5	300	8"	4.9635±0.0065	51	25	4.2065±0.0065	0.38
16-800-341	507-PP-9SUP-5	300	9"	4.9635±0.0065	51	25	4.2065±0.0065	0.38
16-800-424	513-7PP-7SUP-5	400	7"	9.9935±0.0065	38	13	9.070±0.013	0.46
16-800-425	513-7PP-8SUP-5	400	8"	9.9935±0.0065	38	13	9.070±0.013	0.46
16-800-426	513-7PP-9SUP-5	400	9"	9.9935±0.0065	38	13	9.070±0.013	0.46
16-800-461	528-PP-7SUP-5	500	7"	4.9635±0.0065	25	13	4.2065±0.0065	0.38
16-800-462	528-PP-8SUP-5	500	8"	4.9635±0.0065	25	13	4.2065±0.0065	0.38
16-800-463	528-PP-9SUP-5	500	9"	4.9635±0.0065	25	13	4.2065±0.0065	0.38
16-800-486	535-PP-7SUP-5	600	7"	4.9635±0.0065	13	6	4.2065±0.0065	0.38
16-800-487	535-PP-8SUP-5	600	8"	4.9635±0.0065	13	6	4.2065±0.0065	0.38
16-800-488	535-PP-9SUP-5	600	9"	4.9635±0.0065	13	6	4.2065±0.0065	0.38

# Why Wilmad NMR Tubes?

- ISO 9001:2008 certified manufacturer
- Precision tube features unparalleled quality to maximize SNR
- Economy tube has best compatibility with all NMR instruments
- 100% tested for spinner fitting
- 100% inspected for surface defects
- Inventor of the first NMR tube
- Standard-setter for NMR tube MHz frequency rating
- 60 years of experience in serving NMR community
- Most comprehensive offering with over 1000 NMR products

5 mm Economy Tube O.D. Comparison

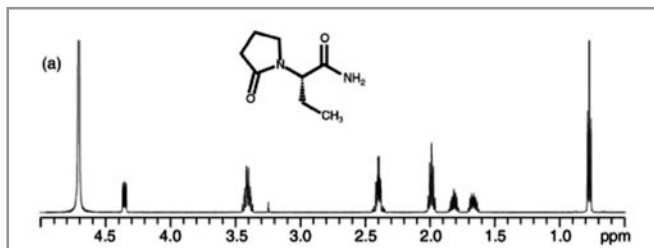


## Levetiracetam

<sup>13</sup>C, 16 scans, 600MHz

5 mm 600 MHz Economy

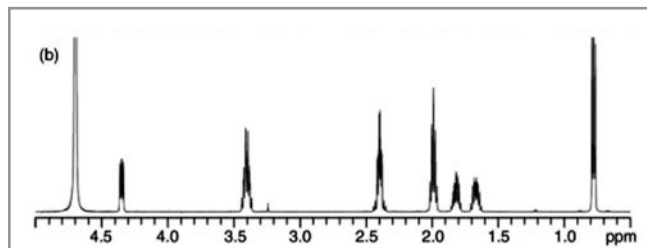
WG-1241-7



VS.

5 mm 600 MHz Precision

535-PP-7

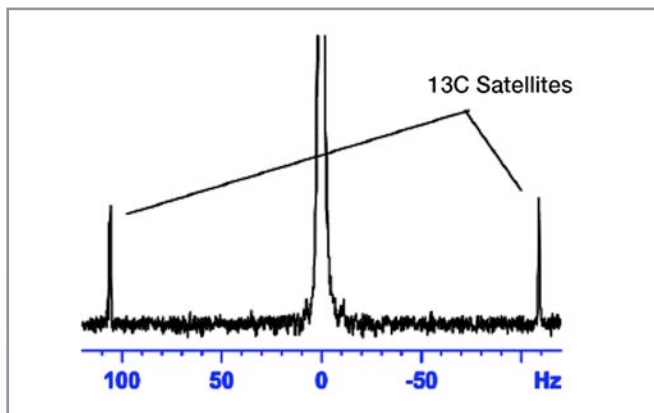


## TMS

<sup>1</sup>H, 16 scans, 600MHz

5 mm 600 MHz Economy

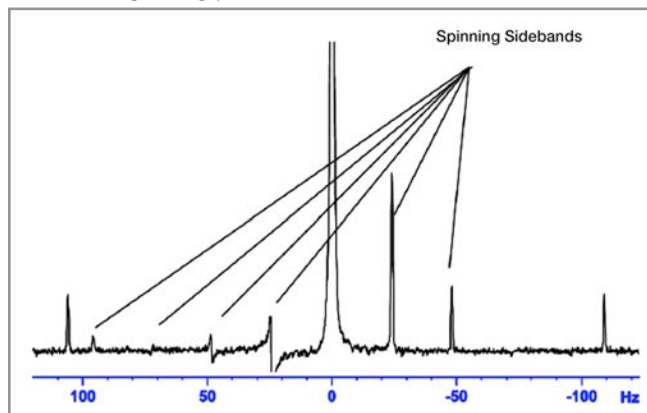
WG-1241-7



VS.

5 mm High Throughput

High Throughput tube with selected max 12 micron camber



## Wilmod-LabGlass at a Glance

With over 60 years of experience in development, engineering and manufacturing, Wilmod-LabGlass is a leading supplier of NMR and EPR consumables and laboratory glassware for academia, industry and healthcare. Our innovative laboratory solutions are manufactured using state of the art processing and inspection equipment, providing you with the highest quality and tolerances available. 7000+ standard items as well as custom fabrication capabilities and technical expertise make us a valuable member of your team for years to come.

- ISO 9001:2008 Registered
- Class A Calibrated Lab Glassware
- Broadest Line of NMR Products in the Industry
- Precision Engineered Glass
- OEM Quartz Components and assemblies
- Custom Glass Fabrication
- Glass Repair Services Maximize Life of Precious Laboratory Tools

# Wilmod-LabGlass

## NMR Sample Tubes

### Economy

- Best OD tolerance in the industry; 30% thicker wall than competitive products
- 100% visual and physical inspection ensures quality, including dimensions and surface defects
- For experiments with small organic molecules (Molecular Weight ~500) at ambient temperatures only



### High Throughput

- One of the best OD tolerances in the industry
- Guaranteed to fit tightly in the spinner turbine
- Designed for routine use in most low to mid field NMR spectrometers



### Precision

- For temperatures up to 230°C, and within a temperature step of 120°C
- Ideal for experiments requiring critical shimming quality (high/ultrahigh field, non-spinning, multi-dimensional, multi-nuclei, DNP experiments and studies involving biological samples)



### Precision Quartz

- To maximize SNR, these pure Quartz tubes have minimal paramagnetic impurities that would impact shimming
- Ideal for variable temperature experiments that have a temperature step over 120°C as well as experiments at temperatures up to 1300°C
- 100% inspection with multiple NIST traceable gauges and optical surface defect checks



### Precision Suprasil®

- Transmission rate from 190nm to 2600nm is well over 95% (10mm thickness) excluding reflection
- Similar thermal expansion rate and tensile strength as natural quartz which is 14 times more robust during the cooling/heating process than Type 1 Class A glass
- Safe for experiments at temperatures up to 1300°C



Manufactured in  
 an ISO 9001:2008 USA facility

To learn more, visit  
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 Keyword: Wilmod NMR

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