

## *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.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15368778	WG-1206-7-5	100	7"	4.947±0.019mm	51µm	50µm	4.1mm	0.43mm
15378778	WG-1206-8-5	100	8"	4.947±0.019mm	51µm	50µm	4.1mm	0.43mm
15398798	WG-1208-7-5	200	7"	4.947±0.019mm	51µm	25µm	4.1mm	0.43mm
15308808	WG-1208-8-5	200	8"	4.947±0.019mm	51µm	25µm	4.1mm	0.43mm
15388838	WG-1226-7-5	300	7"	4.947±0.019mm	51µm	13µm	4.1mm	0.43mm
15398838	WG-1226-8-5	300	8"	4.947±0.019mm	51µm	13µm	4.1mm	0.43mm
15308948	WG-1228-7-5	400	7"	4.947±0.019mm	13µm	13µm	4.1mm	0.43mm
15318948	WG-1228-8-5	400	8"	4.947±0.019mm	13µm	13µm	4.1mm	0.43mm
15388978	WG-1235-7-5	500	7"	4.947±0.019mm	6µm	6µm	4.1mm	0.43mm
15398978	WG-1235-8-5	500	8"	4.947±0.019mm	6µm	6µm	4.1mm	0.43mm
15369008	WG-1241-7-5	600	7"	4.947±0.019mm	3.8µm	3.8µm	4.1mm	0.43mm
15379008	WG-1241-8-5	600	8"	4.947±0.019mm	3.8µm	3.8µm	4.1mm	0.43mm
15349028	WG-1242-7-5	700	7"	4.947±0.019mm	2.5µm	3.8µm	4.1mm	0.43mm
15359028	WG-1242-8-5	700	8"	4.947±0.019mm	2.5µm	3.8µm	4.1mm	0.43mm

## 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.

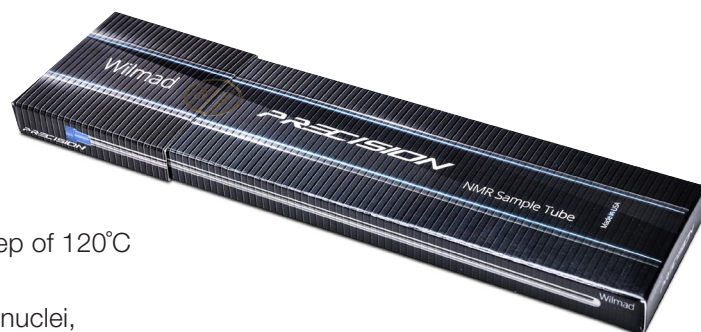
- Best OD tolerances in the industry
- Guaranteed to fit tightly in the spinner turbine
- Designed for routine use in most low to mid field NMR spectrometers



Cat. No.	Model	MHz RATING	LENGTH	O.D.	AVERAGE CAMBER	WALL THICKNESS	PACK
15398628	WG-1000-4-SJ	600	103.5mm	4.947±0.019mm	60µm	0.43mm	100
15309038	WG-1000-7	High-Throughput	178mm	4.947±0.019mm	60µm	0.43mm	100
15319038	WG-1000-7-50	High-Throughput	178mm	4.947±0.019mm	60µm	0.43mm	50
15348698	WG-1000-7-SJ	600	178mm	4.947±0.019mm	60µm	0.43mm	100
15329038	WG-1000-8	High-Throughput	203mm	4.947±0.019mm	60µm	0.43mm	100
15339038	WG-1000-8-50	High-Throughput	203mm	4.947±0.019mm	60µm	0.43mm	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.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15358768	505-PS-7-5	100	7"	4.9635±0.0065mm	76µm	51µm	4.21±0.13mm	0.38mm
15378768	505-PS-8-5	100	8"	4.9635±0.0065mm	76µm	51µm	4.21±0.13mm	0.38mm
15388768	505-PS-9-5	100	9"	4.9635±0.0065mm	76µm	51µm	4.21±0.13mm	0.38mm
15308798	506-PP-7-5	200	7"	4.9635±0.0065mm	51µm	51µm	4.2065±0.0065mm	0.38mm
15318798	506-PP-8-5	200	8"	4.9635±0.0065mm	51µm	51µm	4.2065±0.0065mm	0.38mm
15348798	506-PP-9-5	200	9"	4.9635±0.0065mm	51µm	51µm	4.2065±0.0065mm	0.38mm
15308818	507-PP-7-5	300	7"	4.9635±0.0065mm	51µm	25µm	4.2065±0.0065mm	0.38mm
15318818	507-PP-8-5	300	8"	4.9635±0.0065mm	51µm	25µm	4.2065±0.0065mm	0.38mm
15328818	507-PP-9-5	300	9"	4.9635±0.0065mm	51µm	25µm	4.2065±0.0065mm	0.38mm
15308878	526-PP-7-5	350	7"	4.9635±0.0065mm	51µm	13µm	4.2065±0.0065mm	0.38mm
15328878	526-PP-8-5	350	8"	4.9635±0.0065mm	51µm	13µm	4.2065±0.0065mm	0.38mm
15338878	526-PP-9-5	350	9"	4.9635±0.0065mm	51µm	13µm	4.2065±0.0065mm	0.38mm
15318918	527-PP-7-5	400	7"	4.9635±0.0065mm	25µm	25µm	4.2065±0.0065mm	0.38mm
15338918	527-PP-8-5	400	8"	4.9635±0.0065mm	25µm	25µm	4.2065±0.0065mm	0.38mm
15348918	527-PP-9-5	400	9"	4.9635±0.0065mm	25µm	25µm	4.2065±0.0065mm	0.38mm
15378968	528-PP-7-5	500	7"	4.9635±0.0065mm	25µm	13µm	4.2065±0.0065mm	0.38mm
15388968	528-PP-8-5	500	8"	4.9635±0.0065mm	25µm	13µm	4.2065±0.0065mm	0.38mm
15398968	528-PP-9-5	500	9"	4.9635±0.0065mm	25µm	13µm	4.2065±0.0065mm	0.38mm
15339008	535-PP-7-5	600	7"	4.9635±0.0065mm	13µm	6µm	4.2065±0.0065mm	0.38mm
15349008	535-PP-8-5	600	8"	4.9635±0.0065mm	13µm	6µm	4.2065±0.0065mm	0.38mm
15359008	535-PP-9-5	600	9"	4.9635±0.0065mm	13µm	6µm	4.2065±0.0065mm	0.38mm
15379028	541-PP-7-5	800	7"	4.9635±0.0065mm	3.8µm	3.8µm	4.2065±0.0065mm	0.38mm
15389028	541-PP-8-5	800	8"	4.9635±0.0065mm	3.8µm	3.8µm	4.2065±0.0065mm	0.38mm
15358738	542-PP-7-5	1000	7"	4.9635±0.0065mm	2.5µm	3.8µm	4.2065±0.0065mm	0.38mm
15368738	542-PP-8-5	1000	8"	4.9635±0.0065mm	2.5µm	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.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15398888	547-PPT-7-5	350	7"	4.9635±0.0065mm	51µm	13µm	4.4965±0.0065mm	0.24mm
15308898	547-PPT-8-5	350	8"	4.9635±0.0065mm	51µm	13µm	4.4965±0.0065mm	0.24mm
15318898	547-PPT-9-5	350	9"	4.9635±0.0065mm	51µm	13µm	4.4965±0.0065mm	0.24mm
15358948	550-PPT-7-5	400	7"	4.9635±0.0065mm	38µm	13µm	4.4965±0.0065mm	0.24mm
15368948	550-PPT-8-5	400	8"	4.9635±0.0065mm	38µm	13µm	4.4965±0.0065mm	0.24mm
15378948	550-PPT-9-5	400	9"	4.9635±0.0065mm	38µm	13µm	4.4965±0.0065mm	0.24mm
15319018	555-PPT-7-5	600	7"	4.9635±0.0065mm	13µm	6µm	4.4965±0.0065mm	0.24mm
15329018	555-PPT-8-5	600	8"	4.9635±0.0065mm	13µm	6µm	4.4965±0.0065mm	0.24mm
15339018	555-PPT-9-5	600	9"	4.9635±0.0065mm	13µm	6µm	4.4965±0.0065mm	0.24mm



## WilmaD 3mm OD Thin Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15368788	305-PS-7-5	200	7"	2.9935±0.0065mm	76µm	51µm	2.413±0.13mm	0.29mm
15378788	305-PS-8-5	200	8"	2.9935±0.0065mm	76µm	51µm	2.413±0.13mm	0.29mm
15398788	305-PS-9-5	200	9"	2.9935±0.0065mm	76µm	51µm	2.413±0.13mm	0.29mm
15328808	307-PP-7-5	300	7"	2.9935±0.0065mm	51µm	25µm	2.4195±0.0065mm	0.29mm
15338808	307-PP-8-5	300	8"	2.9935±0.0065mm	51µm	25µm	2.4195±0.0065mm	0.29mm
15348808	307-PP-9-5	300	9"	2.9935±0.0065mm	51µm	25µm	2.4195±0.0065mm	0.29mm
15358908	327-PP-7-5	400	7"	2.9935±0.0065mm	25µm	25µm	2.4195±0.0065mm	0.29mm
15368908	327-PP-8-5	400	8"	2.9935±0.0065mm	25µm	25µm	2.4195±0.0065mm	0.29mm
15378908	327-PP-9-5	400	9"	2.9935±0.0065mm	25µm	25µm	2.4195±0.0065mm	0.29mm
15348968	328-PP-7-5	500	7"	2.9935±0.0065mm	25µm	13µm	2.4195±0.0065mm	0.29mm
15358968	328-PP-8-5	500	8"	2.9935±0.0065mm	25µm	13µm	2.4195±0.0065mm	0.29mm
15368968	328-PP-9-5	500	9"	2.9935±0.0065mm	25µm	13µm	2.4195±0.0065mm	0.29mm
15398998	335-PP-7-5	600	7"	2.9935±0.0065mm	13µm	6µm	2.4195±0.0065mm	0.29mm
15309008	335-PP-8-5	600	8"	2.9935±0.0065mm	13µm	6µm	2.4195±0.0065mm	0.29mm
15319008	335-PP-9-5	600	9"	2.9935±0.0065mm	13µm	6µm	2.4195±0.0065mm	0.29mm

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

Cat. No.	Model	MHz RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15318848	537-PPT-7-5	300	7"	4.9635±0.0065mm	51µm	25µm	4.4965±0.0065mm	0.24mm
15328848	537-PPT-8-5	300	8"	4.9635±0.0065mm	51µm	25µm	4.4965±0.0065mm	0.24mm
15348848	537-PPT-9-5	300	9"	4.9635±0.0065mm	51µm	25µm	4.4965±0.0065mm	0.24mm
15328948	540-PPT-7-5	400	7"	4.9635±0.0065mm	25µm	13µm	4.4965±0.0065mm	0.24mm
15338948	540-PPT-8-5	400	8"	4.9635±0.0065mm	25µm	13µm	4.4965±0.0065mm	0.24mm
15348948	540-PPT-9-5	400	9"	4.9635±0.0065mm	25µm	13µm	4.4965±0.0065mm	0.24mm
15389008	545-PPT-7-5	600	7"	4.9635±0.0065mm	13µm	6µm	4.4965±0.0065mm	0.24mm
15399008	545-PPT-8-5	600	8"	4.9635±0.0065mm	13µm	6µm	4.4965±0.0065mm	0.24mm
15309018	545-PPT-9-5	600	9"	4.9635±0.0065mm	13µm	6µm	4.4965±0.0065mm	0.24mm

## WilmaD 5mm OD Medium Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15388778	503-PS-7-5	100	7"	4.9635±0.0065mm	76µm	51µm	3.43±0.13mm	0.77mm
15308788	503-PS-8-5	100	8"	4.9635±0.0065mm	76µm	51µm	3.43±0.13mm	0.77mm
15318788	503-PS-9-5	100	9"	4.9635±0.0065mm	76µm	51µm	3.43±0.13mm	0.77mm
15358848	504-PP-7-5	300	7"	4.9635±0.0065mm	152µm	51µm	3.43±0.13mm	0.77mm
15368848	504-PP-8-5	300	8"	4.9635±0.0065mm	152µm	51µm	3.43±0.13mm	0.77mm
15378848	504-PP-9-5	300	9"	4.9635±0.0065mm	152µm	51µm	3.43±0.13mm	0.77mm
15388948	524-PP-7-5	400	7"	4.9635±0.0065mm	76µm	51µm	3.43±0.13mm	0.77mm
15398948	524-PP-8-5	400	8"	4.9635±0.0065mm	76µm	51µm	3.43±0.13mm	0.77mm
15308958	524-PP-9-5	400	9"	4.9635±0.0065mm	76µm	51µm	3.43±0.13mm	0.77mm

## Wilmad 5mm OD Heavy Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15328788	501-PS-7-5	100	7"	4.9635±0.0065mm	152µm	51µm	2.16±0.13mm	1.4mm
15348788	501-PS-8-5	100	8"	4.9635±0.0065mm	152µm	51µm	2.16±0.13mm	1.4mm
15358788	501-PS-9-5	100	9"	4.9635±0.0065mm	152µm	51µm	2.16±0.13mm	1.4mm
15308858	502-PP-7-5	300	7"	4.9635±0.0065mm	152µm	51µm	2.160±0.013mm	1.4mm
15318858	502-PP-8-5	300	8"	4.9635±0.0065mm	152µm	51µm	2.160±0.013mm	1.4mm
15338858	502-PP-9-5	300	9"	4.9635±0.0065mm	152µm	51µm	2.160±0.013mm	1.4mm
15338988	522-PP-7-5	500	7"	4.9635±0.0065mm	51µm	51µm	2.160±0.013mm	1.4mm
15348988	522-PP-8-5	500	8"	4.9635±0.0065mm	51µm	51µm	2.160±0.013mm	1.4mm
15358988	522-PP-9-5	500	9"	4.9635±0.0065mm	51µm	51µm	2.160±0.013mm	1.4mm

## Wilmad 10mm OD Thin Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15398768	513-1PS-7-5	100	7"	9.9935±0.0065mm	254µm	51µm	8.90±0.13mm	0.55mm
15308778	513-1PS-8-5	100	8"	9.9935±0.0065mm	254µm	51µm	8.90±0.13mm	0.55mm
15318778	513-1PS-9-5	100	9"	9.9935±0.0065mm	254µm	51µm	8.90±0.13mm	0.55mm
15358798	513-1PP-7-5	200	7"	9.9935±0.0065mm	254µm	51µm	9.070±0.013mm	0.46mm
15368798	513-1PP-8-5	200	8"	9.9935±0.0065mm	254µm	51µm	9.070±0.013mm	0.46mm
15388798	513-1PP-9-5	200	9"	9.9935±0.0065mm	254µm	51µm	9.070±0.013mm	0.46mm
15378818	513-3PP-8-5	300	8"	9.9935±0.0065mm	76µm	38µm	9.070±0.013mm	0.46mm
15398818	513-3PP-9-5	300	9"	9.9935±0.0065mm	76µm	38µm	9.070±0.013mm	0.46mm
15398918	513-5PP-7-5	400	7"	9.9935±0.0065mm	51µm	25µm	9.070±0.013mm	0.46mm
15318928	513-5PP-8-5	400	8"	9.9935±0.0065mm	51µm	25µm	9.070±0.013mm	0.46mm
15328928	513-5PP-9-5	400	9"	9.9935±0.0065mm	51µm	25µm	9.070±0.013mm	0.46mm
15338978	513-7PP-7-5	500	7"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm
15348978	513-7PP-8-5	500	8"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm
15358978	513-7PP-9-5	500	9"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm

## Wilmad 10mm OD Medium Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15308988	513-7PPM-7-5	200	7"	9.9935±0.0065mm	38µm	13µm	8.160±0.013mm	0.92mm
15318988	513-7PPM-8-5	200	8"	9.9935±0.0065mm	38µm	13µm	8.160±0.013mm	0.92mm
15328988	513-7PPM-9-5	200	9"	9.9935±0.0065mm	38µm	13µm	8.160±0.013mm	0.92mm

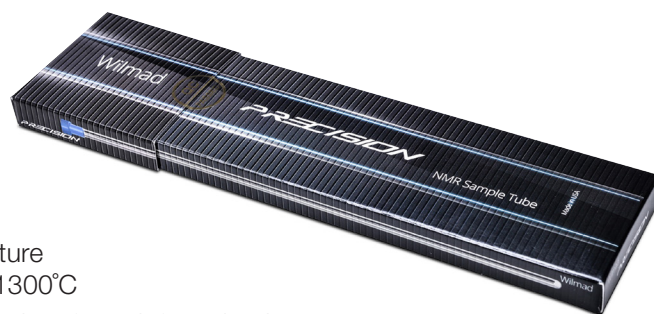
## Wilmad 10mm OD Heavy Walled Precision NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15328968	513-7PPH-7-5	450	7"	9.9935±0.0065mm	51µm	13µm	7.100±0.013mm	1.45mm
15338968	513-7PPH-8-5	450	8"	9.9935±0.0065mm	51µm	13µm	7.100±0.013mm	1.45mm
15348858	513-7PPH-9-5	450	9"	9.9935±0.0065mm	51µm	13µm	7.100±0.013mm	1.45mm

## 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.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15328868	507-PP-7QTZ-5	300	7"	4.936±0.0065mm	51µm	25µm	4.2065±0.0065mm	0.38mm
15338868	507-PP-8QTZ-5	300	8"	4.936±0.0065mm	51µm	25µm	4.2065±0.0065mm	0.38mm
15358868	507-PP-9QTZ-5	300	9"	4.936±0.0065mm	51µm	25µm	4.2065±0.0065mm	0.38mm
15338998	528-PP-7QTZ-5	500	7"	4.936±0.0065mm	25µm	13µm	4.2065±0.0065mm	0.38mm
15348998	528-PP-8QTZ-5	500	8"	4.936±0.0065mm	25µm	13µm	4.2065±0.0065mm	0.38mm
15358998	528-PP-9QTZ-5	500	9"	4.936±0.0065mm	25µm	13µm	4.2065±0.0065mm	0.38mm
15389018	535-PP-7QTZ-5	600	7"	4.936±0.0065mm	13µm	6µm	4.2065±0.0065mm	0.38mm
15399018	535-PP-8QTZ-5	600	8"	4.936±0.0065mm	13µm	6µm	4.2065±0.0065mm	0.38mm
15309028	535-PP-9QTZ-5	600	9"	4.936±0.0065mm	13µm	6µm	4.2065±0.0065mm	0.38mm

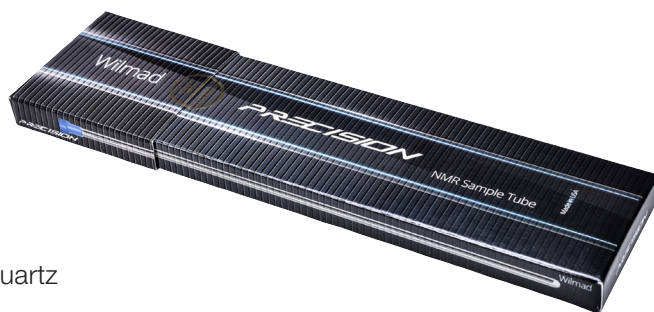
## Wilmad 10mm OD Thin Walled Quartz NMR Tubes

Cat. No.	Model	MHz RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15368958	513-7PP-7QTZ-5	400	7"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm
15378958	513-7PP-8QTZ-5	400	8"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm
15388958	513-7PP-9QTZ-5	400	9"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm

## 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

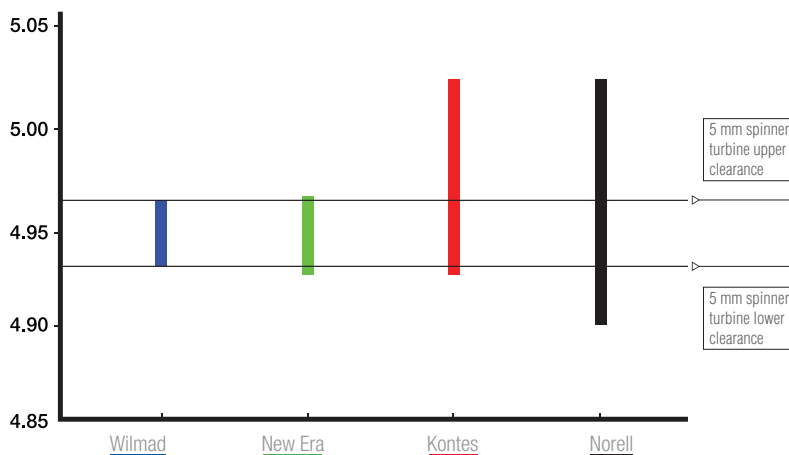


Cat. No.	Model	MHz RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
15378868	507-PP-7SUP-5	300	7"	4.9635±0.0065mm	51µm	25µm	4.2065±0.0065mm	0.38mm
15388868	507-PP-8SUP-5	300	8"	4.9635±0.0065mm	51µm	25µm	4.2065±0.0065mm	0.38mm
15398868	507-PP-9SUP-5	300	9"	4.9635±0.0065mm	51µm	25µm	4.2065±0.0065mm	0.38mm
15398958	513-7PP-7SUP-5	400	7"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm
15308968	513-7PP-8SUP-5	400	8"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm
15318968	513-7PP-9SUP-5	400	9"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm
15368998	528-PP-7SUP-5	500	7"	4.9635±0.0065mm	25µm	13µm	4.2065±0.0065mm	0.38mm
15378998	528-PP-8SUP-5	500	8"	4.9635±0.0065mm	25µm	13µm	4.2065±0.0065mm	0.38mm
15388998	528-PP-9SUP-5	500	9"	4.9635±0.0065mm	25µm	13µm	4.2065±0.0065mm	0.38mm
15319028	535-PP-7SUP-5	600	7"	4.9635±0.0065mm	13µm	6µm	4.2065±0.0065mm	0.38mm
15329028	535-PP-8SUP-5	600	8"	4.9635±0.0065mm	13µm	6µm	4.2065±0.0065mm	0.38mm
15339028	535-PP-9SUP-5	600	9"	4.9635±0.0065mm	13µm	6µm	4.2065±0.0065mm	0.38mm

# 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

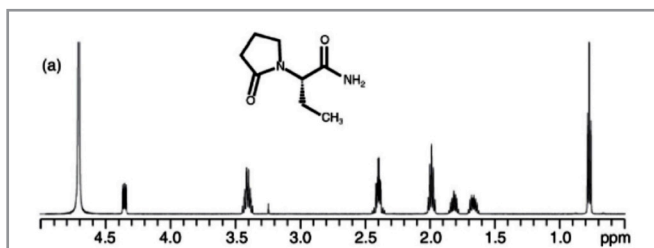


## Levetiracetam

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

5 mm 600 MHz Economy

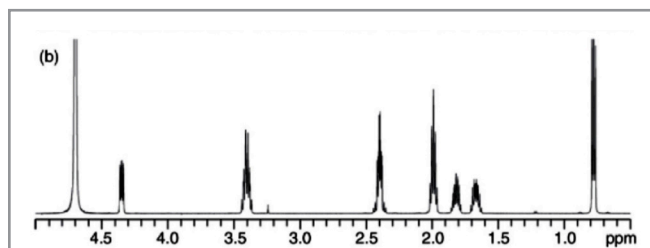
WG-1241-7



VS.

5 mm 600 MHz Precision

535-PP-7

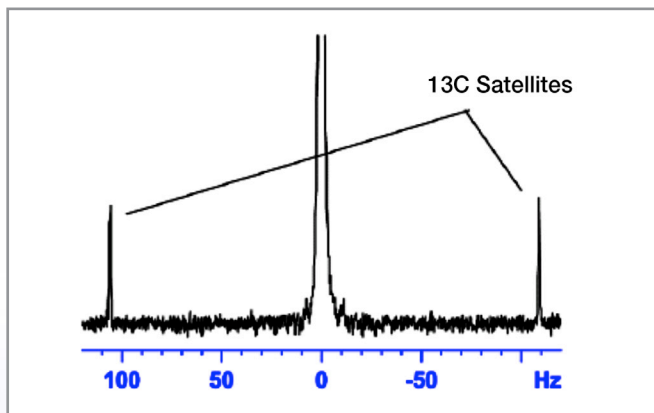


## TMS

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

5 mm 600 MHz Economy

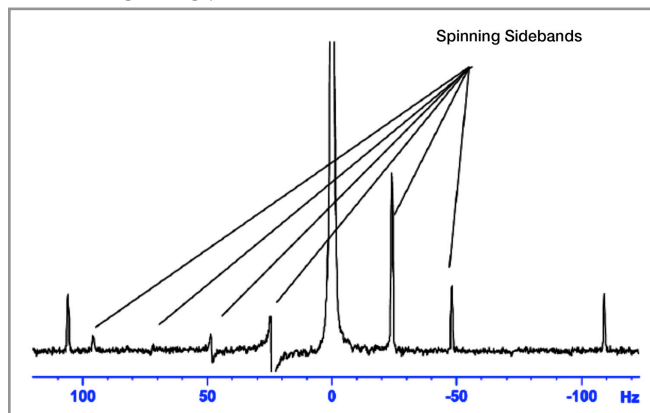
WG-1241-7



VS.

5 mm High Throughput

High Throughput tube with selected max 12 micron camber





## Wilmad-LabGlass at a Glance

With over 60 years of experience in development, engineering and manufacturing, Wilmad-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**

# Wilmad-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 <math>\approx 500</math>) 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)



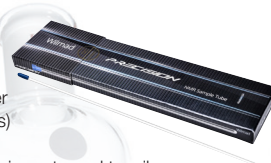
### Precision Quartz

- 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**

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**Keyword: Bel-Art NMR**