

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
16-800-489	WG-1242-7-5	700	7"	4.947±0.019mm	2.5µm	3.8µm	4.1mm	0.43mm
16-800-471	WG-1241-7-5	600	7"	4.947±0.019mm	3.8µm	3.8µm	4.1mm	0.43mm
16-800-472	WG-1241-8-5	600	8"	4.947±0.019mm	3.8µm	3.8µm	4.1mm	0.43mm
16-800-443	WG-1235-7-5	500	7"	4.947±0.019mm	13µm	6µm	4.1mm	0.43mm
16-800-444	WG-1235-8-5	500	8"	4.947±0.019mm	13µm	6µm	4.1mm	0.43mm
16-800-405	WG-1228-7-5	400	7"	4.947±0.019mm	13µm	13µm	4.1mm	0.43mm
16-800-406	WG-1228-8-5	400	8"	4.947±0.019mm	13µm	13µm	4.1mm	0.43mm
16-800-318	WG-1226-7-5	300	7"	4.947±0.019mm	51µm	13µm	4.1mm	0.43mm
16-800-319	WG-1226-8-5	300	8"	4.947±0.019mm	51µm	13µm	4.1mm	0.43mm
16-800-290	WG-1208-7-5	200	7"	4.947±0.019mm	51µm	25µm	4.1mm	0.43mm
16-800-273	WG-1206-7-5	100	7"	4.947±0.019mm	51µm	50µm	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.

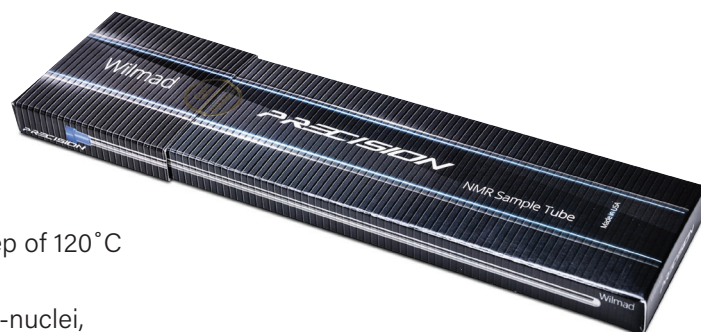
- Best OD tolerances in the industry
- Guaranteed to fit tightly in the spinner turbine
- Designed for routine use in most low to mid field NMR spectrometers



CAT. NO.	MODEL	MHZ RATING	LENGTH	O.D.	AVERAGE CAMBER	WALL THICKNESS	PACK
16-800-495	WG-1000-7	High-Throughput	178mm	4.947±0.019mm	60µm	0.43mm	100
16-800-497	WG-1000-8	High-Throughput	203mm	4.947±0.019mm	60µm	0.43mm	100
16-800-161	WG-1000-4-SJ	600	103.5mm	4.947±0.019mm	60µm	0.43mm	100
16-800-208	WG-1000-7-SJ	600	178mm	4.947±0.019mm	60µm	0.43mm	100

## 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.



- 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 3mm OD Thin Walled Precision NMR Tubes

CAT. NO.	MODEL	MHZ RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
16-800-464	335-PP-7-5	600	7"	2.9935±0.0065mm	13µm	6µm	2.4195±0.0065mm	0.29mm
16-800-465	335-PP-8-5	600	8"	2.9935±0.0065mm	13µm	6µm	2.4195±0.0065mm	0.29mm
16-800-466	335-PP-9-5	600	9"	2.9935±0.0065mm	13µm	6µm	2.4195±0.0065mm	0.29mm
16-800-429	328-PP-7-5	500	7"	2.9935±0.0065mm	25µm	13µm	2.4195±0.0065mm	0.29mm
16-800-430	328-PP-8-5	500	8"	2.9935±0.0065mm	25µm	13µm	2.4195±0.0065mm	0.29mm
16-800-375	327-PP-7-5	400	7"	2.9935±0.0065mm	25µm	25µm	2.4195±0.0065mm	0.29mm
16-800-292	307-PP-7-5	300	7"	2.9935±0.0065mm	51µm	25µm	2.4195±0.0065mm	0.29mm

## Wilmad 5mm OD Thin Walled Precision NMR Tubes

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

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

CAT. NO.	MODEL	MHZ RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
16-800-473	545-PPT-7-5	600	7"	4.9635±0.0065mm	13µm	6µm	4.4965±0.0065mm	0.24mm
16-800-474	545-PPT-8-5	600	8"	4.9635±0.0065mm	13µm	6µm	4.4965±0.0065mm	0.24mm
16-800-475	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
16-800-413	524-PP-7-5	400	7"	4.9635±0.0065mm	76µm	51µm	3.43±0.13mm	0.77mm
16-800-414	524-PP-8-5	400	8"	4.9635±0.0065mm	76µm	51µm	3.43±0.13mm	0.77mm
16-800-415	524-PP-9-5	400	9"	4.9635±0.0065mm	76µm	51µm	3.43±0.13mm	0.77mm
16-800-323	504-PP-7-5	300	7"	4.9635±0.0065mm	152µm	51µm	3.43±0.13mm	0.77mm
16-800-324	504-PP-8-5	300	8"	4.9635±0.0065mm	152µm	51µm	3.43±0.13mm	0.77mm
16-800-325	504-PP-9-5	300	9"	4.9635±0.0065mm	152µm	51µm	3.43±0.13mm	0.77mm
16-800-275	503-PS-7-5	100	7"	4.9635±0.0065mm	76µm	51µm	3.43±0.13mm	0.77mm
16-800-276	503-PS-8-5	100	8"	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
16-800-448	522-PP-7-5	500	7"	4.9635±0.0065mm	51µm	51µm	2.160±0.013mm	1.4mm
16-800-449	522-PP-8-5	500	8"	4.9635±0.0065mm	51µm	51µm	2.160±0.013mm	1.4mm
16-800-450	522-PP-9-5	500	9"	4.9635±0.0065mm	51µm	51µm	2.160±0.013mm	1.4mm
16-800-327	502-PP-7-5	300	7"	4.9635±0.0065mm	152µm	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
16-800-438	513-7PP-7-5	500	7"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm
16-800-439	513-7PP-8-5	500	8"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm
16-800-387	513-5PP-7-5	400	7"	9.9935±0.0065mm	51µm	25µm	9.070±0.013mm	0.46mm
16-800-388	513-5PP-8-5	400	8"	9.9935±0.0065mm	51µm	25µm	9.070±0.013mm	0.46mm
16-800-389	513-5PP-9-5	400	9"	9.9935±0.0065mm	51µm	25µm	9.070±0.013mm	0.46mm
16-800-287	513-1PP-7-5	200	7"	9.9935±0.0065mm	254µm	51µm	9.070±0.013mm	0.46mm
16-800-288	513-1PP-8-5	200	8"	9.9935±0.0065mm	254µm	51µm	9.070±0.013mm	0.46mm
16-800-267	513-1PS-7-5	100	7"	9.9935±0.0065mm	254µm	51µm	8.90±0.13mm	0.55mm
16-800-268	513-1PS-8-5	100	8"	9.9935±0.0065mm	254µm	51µm	8.90±0.13mm	0.55mm
16-800-269	513-1PS-9-5	100	9"	9.9935±0.0065mm	254µm	51µm	8.90±0.13mm	0.55mm

## Wilmad 10mm OD Medium Walled Precision NMR Tubes

CAT. NO.	MODEL	MHZ RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
16-800-445	513-7PPM-7-5	200	7"	9.9935±0.0065mm	38µm	13µm	8.160±0.013mm	0.92mm

## 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



Precision Quartz

## Wilmad 5mm OD Thin Walled Quartz NMR Tubes

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

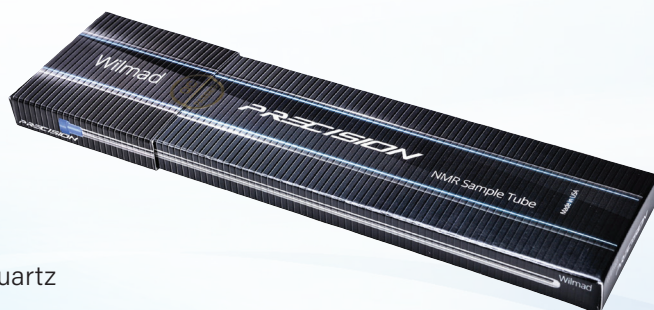
## Wilmad 10mm OD Thin Walled Quartz NMR Tubes

CAT. NO.	MODEL	MHZ RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
16-800-421	513-7PP-7QTZ-5	400	7"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm
16-800-422	513-7PP-8QTZ-5	400	8"	9.9935±0.0065mm	38µm	13µm	9.070±0.013mm	0.46mm
16-800-423	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



Precision Suprasil

CAT. NO.	MODEL	MHZ RATING	LENGTH	O.D.	CONCENTRICITY	CAMBER	I.D.	WALL THICKNESS
16-800-461	528-PP-8SUP-5	500	8"	4.9635±0.0065mm	25µm	13µm	4.2065±0.0065mm	0.38mm
16-800-341	507-PP-9SUP-5	300	9"	4.9635±0.0065mm	51µm	25µm	4.2065±0.0065mm	0.38mm

### Reaction Monitoring System NMR Tubes

- Monitors reactions from start to finish
- Allows for in-tube mixing
- Features an inner chamber with a Teflon® tip that when secured creates a positive seal separating solutions until the user is ready to mix



#### Wilmad 5mm O.D. Reaction Monitoring System NMR Tubes

CATALOG NO.	MODEL	MHZ RATING	OUTER TUBE O.D.	INNER TUBE O.D.	TUBE LENGTH	OVERALL LENGTH	THREAD SIZE
16-800-558	WG-RMS-7	600	5mm	3mm	7"	8.75" collapsed 15.75" extended	15mm O.D.
16-800-560	WG-RMS-8	600	5mm	3mm	8"	9.75" collapsed 17.75" extended	15mm O.D.

### Benchtop Spectrometer NMR Tubes



- Ideal for use with 43, 60, & 80MHz manual sample loading benchtop NMR spectrometers
- Tested in the most popular benchtop spectrometers to assure performance
- Packaging allows for easy tube access & storage

**Note:** Not for use with high-field instruments or spinning experiments

#### Wilmad Benchtop Spectrometer NMR Tubes

CATALOG NO.	MODEL	LENGTH	O.D.	WALL THICKNESS	PACK QTY.
16-800-554	WG-BTNMR-7	7"	5mm	0.43mm	150
16-800-555	WG-BTNMR-8	8"	5mm	0.43mm	150

### Multi-Tube Washer

- Can accommodate up to 5 tubes at once
- Stainless steel solvent transfer tubes fit 3, 4, and 5mm NMR/EPR tubes
- PTFE solvent cup and tubing make this unit resistant to common organic solvents
- Flanged reservoir connection eliminates joint freeze
- Calibrated length mark for 4, 7, 8 and 9" tube
- Complete disassembly without tools for easy cleaning
- Filter flask with vacuum sidearm is required and can be purchased separately

#### Multi-Tube NMR Washer

CATALOG NO.	MODEL	COMPATIBLE WITH
16-800-166	WG-1209-1	#9 Silicone Stopper Joint
16-800-167	WG-1209-J1	24/40 Taper Joint



Prepare to Discover

## 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 9001:2015 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  $\sim$ 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 9001:2015 USA facility

To learn more, visit  
[fishersci.com](http://fishersci.com)  
Keyword: **Wilmad NMR**

Find out more at [fishersci.com](http://fishersci.com)

Contact us today:

**In the United States**

Order online: [fishersci.com](http://fishersci.com)

Fax an order: 1-800-926-1166

Call customer service: 1-800-766-7000

 **fisher scientific**  
part of Thermo Fisher Scientific