

		F9-6x1000 LEX		F10-4x1000 LEX		F12-6x500 LEX		F14-6x250y	
		PP	PC	PP	PC	PP	PC	PP	PC
40 °C	Volume [mL]	900	900	900	900	400	400	255	255
	G-Force	9180	9180	9165	9165	18350	18350	24200	24200
	RPM	6500	6500	7000	7000	9000	9000	11200	11200
23 °C	Volume [mL]	1000	1000	1000	1000	400	400	255	255
	G-Force	17600	17600	20600	20600	24500	24500	30250	30250
	RPM	9000	9000	10500	10500	12000	12000	14000	14000
4 °C	Volume [mL]	1000	1000	1000	1000	400	400	255	255
	G-Force	17600	17600	20600	20600	24500	24500	30250	30250
	RPM	9000	9000	10500	10500	12000	12000	14000	14000

Table 1: Centrifugation specification at various temperatures – Thermo Scientific Fiberlite rotors used in the Thermo Scientific LYNX 4000 and 6000 centrifuge.

Thermo Scientific Fiberlite Bottles¹ 1000 mL, 500 mL and 250 mL for Thermo Scientific LYNX Centrifuges

¹Thermo Scientific™ Fiberlite™ bottle systems combine a Nalgene bottle body with a newly designed Fiberlite cap closure.

A. General Information

Fiberlite Bottles & Accessories

Cat. No. ^{1,2}		Description	Bottle Volume	Material
010-1491	Thermo Scientific Fiberlite Bottle 1000 mL (PPCO)	Set of 2 incl. Cap, Plug and O-Ring (PK/4)	1000 mL	Bottle: PPCO or PC Cap: Nylon, 30% glass filled Plug: PP O-Ring: Silicone
010-1492	Thermo Scientific Fiberlite Bottle 1000 mL (PC)		1000 mL	
010-1493	Thermo Scientific Fiberlite Bottle 500 mL (PPCO)	Set of 6 incl. Cap, Plug and O-Ring (PK/12)	500 mL	Bottle: PPCO or PC Cap: PP, 20% glass filled Plug: PP O-Ring: Silicone
010-1494	Thermo Scientific Fiberlite Bottle 500 mL (PC)		500 mL	
010-1495	Thermo Scientific Fiberlite Bottle 250 mL (PPCO)	Set of 6 incl. Cap, Plug and O-Ring (PK/12)	250 mL	Bottle: PPCO or PC Cap: PP, 20% glass filled Plug: PP O-Ring: Silicone
010-1496	Thermo Scientific Fiberlite Bottle 250 mL (PC)		250 mL	
097-1403	Pad for Fiberlite Bottles	Friction Pad	-	Silicone
097-1409	Tool for 1000 mL Fiberlite Bottles	Tool	-	Aluminum
001-0298	O-Ring for Fiberlite Bottle 1000 mL	Set of 4	-	Silicone
001-0299	O-Ring for Fiberlite Bottle 500 mL	Set of 12	-	Silicone
001-0303	O-Ring for Fiberlite Bottle 250 mL	Set of 12	-	Silicone

¹ PP = Polypropylene, PPCO = Polypropylene Copolymer, PC = Polycarbonate

² Bottles are available in either translucent polypropylene or in clear polycarbonate.

Specifications A

Volume	Thermo Scientific Centrifuge	Thermo Scientific Rotor	Max. RCF
1 000 mL	Sorvall™ LYNX™ 6000	Fiberlite F9-6x1000 LEX	17 568 x g
	Sorvall LYNX 4000/6000	Fiberlite F10-4x1000 LEX	20 584 x g
500 mL	Sorvall LYNX 4000/6000	Fiberlite F12-6x500 LEX	24 471 x g
250 mL	Sorvall LYNX 4000/6000	Fiberlite F14-6x250y	30 240 x g

Specifications B

	Fiberlite 1 000 mL	Fiberlite 500 mL	Fiberlite 250 mL
Max. Capacity	1 000	450	250
Fill Volume Range	800 – 1 000 mL	320 – 400 mL	200 – 250 mL
Maximum Sample Density	1.2 g/mL		
Cycle Life	Fiberlite Caps & Plugs and PPCO/PC Bottles: max. 100 cycles O-Rings: max. 50 cycles. Replace more frequently if necessary.		
Autoclaving	121 °C for 15 minutes NOTICE Do not autoclave bottles with closures engaged to prevent collapse of bottles when cooling. If autoclaved, PC bottles are weakened and their useful life is shortened.		
Warranty	1 Year		

Precaution

Carefully follow centrifuge and rotor instruction manuals to ensure proper performance.

High capacity bottles at super speeds present a risk potential that requires users to have training and knowledge of the variables that may contribute to increased risk of failure. Each laboratory and application has unique variables, including chemical nature of sample solutions, instrument and rotor characteristics, cleaning and sterilization procedures, temperature, duration of run or "spin time", etc. Plastic superspeed bottles, like most laboratory products, have a finite life that is significantly affected by such variables. A failure event has the potential to cause irreparable harm to the rotor or centrifuge. Establish good safety protocols based upon your usage variables.

1. Rotor Compartment Load

Strict adherence to the maximum allowable compartment mass, or a reduced speed is required to prevent rotor failure. Refer to the centrifuge and rotor instruction manual for maximum allowable compartment mass or for the formula for reduced speed.

If the maximum compartment mass is exceeded, the speed must be reduced. Failure to do so can result in centrifuge damage.

2. Usage

- Bottles must be filled at least 80% of the maximum capacity.
- Always securely tighten sealing cap assembly and check for signs of wear. Failure to do so can result in deformation or collapse of the bottle during centrifugation that could result in loss of sample, damage to the rotor and damage to the centrifuge.
- Immediately remove any bottle and closure assembly from service showing signs of wear.
- In any centrifugation process and particularly in large volume fixed angle applications it is possible for a seal to leak or for an aging bottle to fail during use.
- Do not exceed maximum temperature. Do not expose to chemicals which attach the plastic or are absorbed when heated.

3. Autoclaving

PPCO/PC bottles and assemblies (cap and plug) can be autoclaved for 15 min cycles at 121 °C / 15 psig (1.02 bar). When PC bottles are autoclaved, a loss in mechanical strength will occur. Inspect these materials

before each use for signs of crazing (minute cracks). Immediately remove from service if crazing is readily visible to the unaided eye. Autoclave closures and plug assembled on the bottle without engaging the threads.

Do not autoclave bottles with closures engaged to prevent collapse of bottles when cooling

4. Chemical compatibility

The compatibility between chemicals and plastic centrifuge accessories is affected by temperature, chemical concentration, g-force, length of run and other factors. Check the resin properties and chemical resistance charts for both your sample and solvent. Also consider operating temperature when selecting the bottles material, RCF ratings are available (see table 1). All plastics undergo some degree of softening or hardening outside of the recommended ranges. Because of the stresses associated with centrifugation these ratings are a general guide only. We recommend a trial run before using certain chemical.

Your safest policy is to pre-test all bottles under actual condition using water rather than actual sample.

5. Cleaning

Soak centrifuge bottles incl. caps and plugs in warm water with mild non-alkaline detergent to loosen debris. Hand wash and rinse thoroughly with final rinse in distilled (or deionized) water. Do not use abrasive cleaners or brushes. Allow to air dry.

Instruction for use

Superspeed bottles require a sealing cap assembly that includes a closure, plug, and O-ring. Carefully follow centrifuge and rotor instruction manuals to ensure proper performance. Follow assembly instructions (Figure 1).

- Pre-assemble the plug and O-ring. Ensure the O-ring is seated under the ledge of the plug. Visually check that the O-ring is seated evenly around the circumference of the plug.
- Fill bottle and place the plug/O-ring assembly in the bottle. Visually check that the O-ring is seated evenly between the plug and the lip of the bottle.
- Place the closure onto the plug, turn closure until hand-tight. For the 1 000 mL bottle the tool and the friction pad supplied may be required to tighten the cap.
- Before placing bottles into the rotor, weigh bottles to ensure bottles are balanced within the acceptable limit for the respective rotor being used for the turn. Consult the centrifuge and rotor instruction manuals for instruction and the acceptable imbalance tolerance.
- After the run, in case of the 1 000 mL bottle, please use the friction pad and the tool to open the cap, if necessary.
- Also as needed, for the 1 000 mL bottle, please use the other side of the tool to take off the plug, (see figure 1)

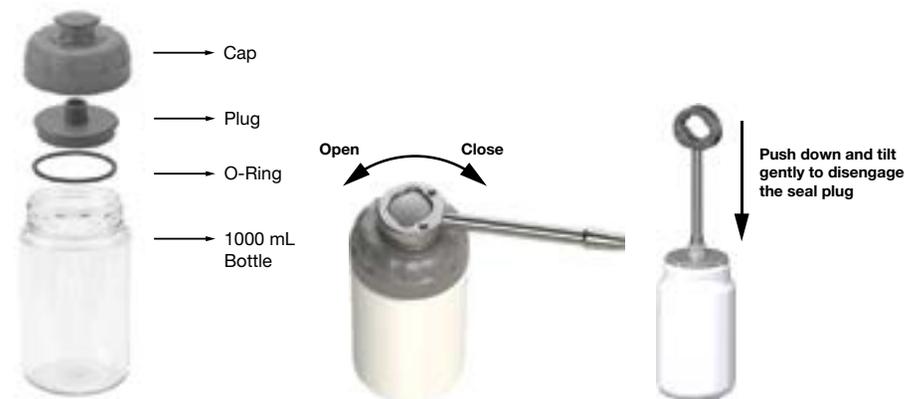


Figure 1: Left: assembly instruction. Center & Right: Use the tool to close and open the cap of the bottle and take of the plug