

NEPTUNE[®]

Tools for Life Sciences



Pipette Tips



Tubes



Plates



TABLE OF CONTENTS



PIPETTE TIPS

Packaging Options 6

S3 Sample Saving Surface 7

ESP Reload 8-9

Filter Tips 10-11

Filter Tip Compatibility Chart 12-13

Pipette Tips 14-17

Pipette Tips Compatibility Chart..... 18-19

Spare Tip Trays 20



TUBES

Tubes Overview 22

Microcentrifuge Tubes..... 23

Cryotubes & Cryovials..... 24

PCR Tubes..... 25-26

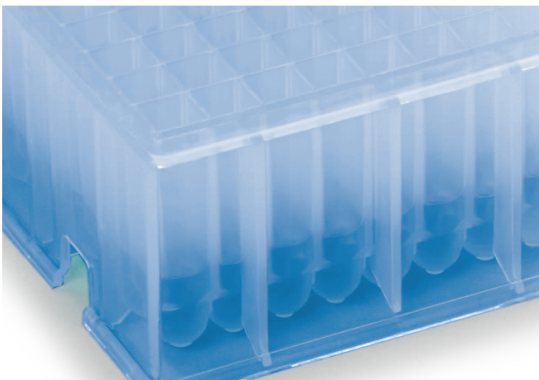
Minitube System 27

PLATES

PCR Plates..... 29-30

PCR Plate Compatibility Chart..... 31-32

Deep Well Plates..... 33



Best Practices for Laboratory Plastics..... 34-36

Chemical and Physical Properties
of Plastics 37-41

Catalog Index 42

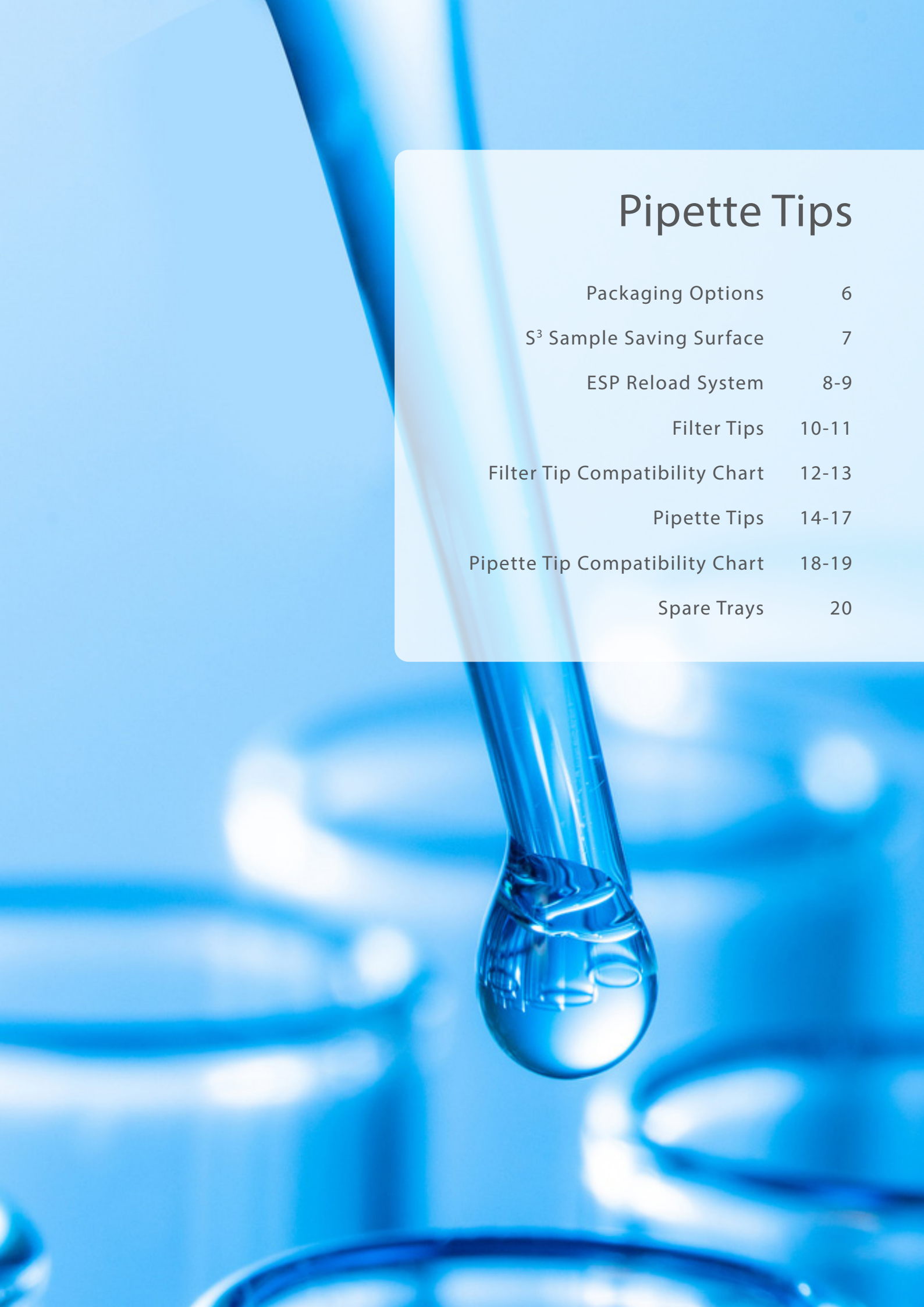




COMMITMENT TO QUALITY

Neptune Pipette Tips are manufactured under stringent controls in Neptune's ISO 9001 certified facility. Neptune's advanced manufacturing process continually monitors the quality of products and individual batch testing ensures Neptune products are certified RNase, DNase, and Endotoxin free.

Test	Product	Assay Description
Function	Tips	Our custom built robotic equipment precisely measures insertion force, checks each tip for vacuum pressure loss, and constantly monitors the function of Neptune tips so that you can be assured of reliable performance.
	Tubes	Samples from each lot of Neptune tubes are extensively centrifuged and boiled tested to ensure they meet the highest standards.
	Plates	Neptune PCR and mega titer plate dimensions are checked against SBS specifications and vacuum tested on customized fixtures to ensure that each plate is flat and leak-free.
Sterility	Process	Neptune pre-sterile products have undergone electron beam irradiation and bioburden testing by an independent laboratory.
Molecular Purity	Nucleic acids	Neptune products are PCR tested and certified to be free of contaminating human nucleic acids.
	Nucleases	Neptune plastics are tested and certified to be free of nucleases, with a test sensitivity level of less than 3.4×10^{-11} Kunitz units of RNase and 1.7×10^{-11} Kunitz units of DNase.
	Endotoxins/Pyrogens	LAL coagulation testing demonstrates these products are free of endotoxins, test sensitivity is 0.06 EU/mL.
Traceability	Process	Each product contains a 5 digit lot number located on the rack, pack and case of each finished good. With Neptune's advanced manufacturing process all raw materials are able to be traced for maximum quality assurance.



Pipette Tips

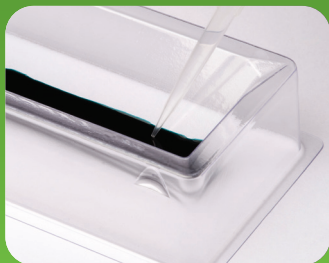
Packaging Options	6
S ³ Sample Saving Surface	7
ESP Reload System	8-9
Filter Tips	10-11
Filter Tip Compatibility Chart	12-13
Pipette Tips	14-17
Pipette Tip Compatibility Chart	18-19
Spare Trays	20

Packaging Options

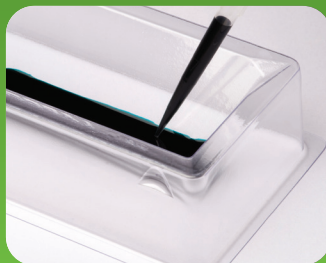




NEPTUNE



Before Pipetting

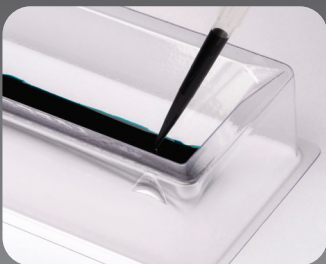
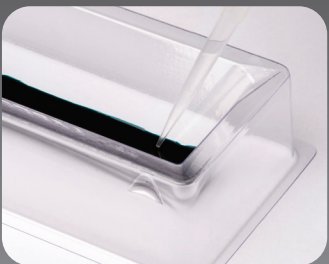


Fluid Drawn



Sample Dispersed

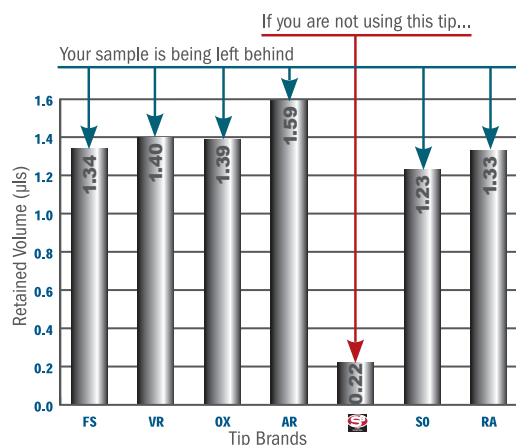
STANDARD POLYMER TIPS

S³ Sample Saving Surface

Neptune's exclusive S³ polymer was designed to increase pipetting accuracy by virtually eliminating sample retention. S³ low retention pipette tips deliver volumes within 0.1% of the indicated volume, versus 0.7% for standard polymer tips. This provides more accurate results.

Pipette tips produced from standard polymers will variably retain biological solutions, preventing accurate and repeatable results. Diamond polishing of the mold reduces the number of imperfections, producing a smoother surface. Silicone treatment of tips further reduces retention, but can leach out and interfere with reactions or degrade at autoclaving temperatures.

Neptune was the first to address this challenge with the development of a novel polymer technology that produces a Sample Saving Surface on plastics. Neptune's S³ polymer system results in a surface that virtually eliminates sample hold-up, providing the most accurate and consistent sample delivery possible in the industry.



ESP RELOAD SYSTEM



ESP[™]
ENVIRONMENTALLY
SUSTAINABLE PACK

FEATURES:

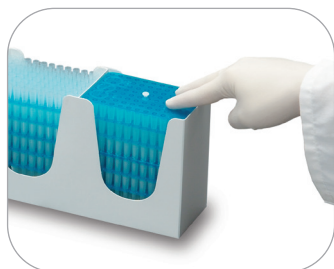
- Reload up to 10 trays in 90 seconds
- Requires 57% less storage space than full racks
- Reuse existing racks/trays
- Generates 90% less packaging waste
- Available in unfiltered and filtered pipette tip formats

The Neptune ESP (Environmentally Sustainable Pack) System was designed to meet industry demand to minimize plastic waste by 90% and provide an environmentally friendly solution. ESP tips provide a low cost alternative compared with racked product, while saving time not having to load bulk tips.

Neptune's revolutionary transfers system allows you to reload your empty racks/trays with new tips in a single movement. The patented transfer card is designed to prevent contamination by minimizing the amount of handling when reloading empty racks/trays. The ESP system is available in both unfiltered and filtered pipette tip reloads. We offer ESP reloads in both pre-sterile and non-sterile formats. Look for the **E** symbol on the pipette chart (under packaging) on pages 10-17. When buying the ESP system for the first time, be sure to purchase an empty tray (page 20).



Unfiltered Tips ESP Reload System



Engage the alignment plate by firmly pressing down on the plate.



Insert the tips into your empty tray.



Secure plate by firmly pressing on all four corners of the alignment plate.



Firmly depress the release button using your index finger.

1000 μ L Extended Length ESP Reload System



Press down firmly on the alignment plate and engage the side posts into the slots on the insert card.



Hold the alignment card away from the side posts and insert the tips into your empty tray.



Secure plate by firmly pressing on all four corners of the alignment plate.



Squeeze the side posts of the alignment plate and pull up to disengage from the insert card.

ESP Reload System for Filter Tips



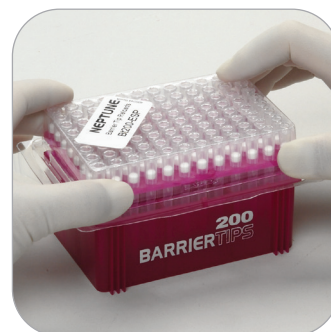
BT-ESP reloads are individually packaged to preserve the integrity of the aerosol barrier/filter.



Remove alignment plate from the packaging base by gripping the alignment plate using the upper portion of the clamshell packaging.



Insert the tips into your empty tray.



Secure plate by firmly pressing on all four corners of the alignment plate.

FILTER TIPS

Neptune Filter Tips are pre-sterile and tested to be free of:

- Human DNA
- DNase & RNase
- Endotoxins



	Neptune PN	Tip Type	Packaging	Quantity
BT10 Series – 10 µL Filter Tip 	BT10	S³	PS R	10 racks of 96/pack 5 packs/case
	BT10.N	NP	PS R	10 racks of 96/pack 5 packs/case
BT10XL Series – 10 µL Extended Length Filter Tip 	BT10XLS3	S³	PS R	10 racks of 96/pack 5 packs/case
	BT10XL	NP	PS R	10 racks of 96/pack 5 packs/case
BT10E Series – 10 µL Eppendorf Style Filter Tip 	BT10E	S³	PS R	10 racks of 96/pack 5 packs/case
BT10F Series – 10 µL Finn Style Filter Tip 	BT10F	S³	PS R	10 racks of 96/pack 5 packs/case
BT20 Series – 20 µL Filter Tip 	BT20	S³	PS R	10 racks of 96/pack 5 packs/case
	BT20-ESP	S³	PS E	10 cards of 96/pack 4 packs/case

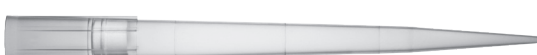
FEATURES **S³** Sample Saving Surface **PS** Pre-Sterile **NP** Natural Polypropylene

PACKAGING OPTIONS **R** Racked **E** ESP Reload System **B** Bulk
Empty rack needed (pg 20)



Product Identification

- Increases lot traceability and makes the racks recyclable
- Printed catalog number simplifies the reordering process

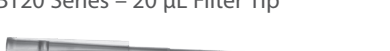
	Neptune PN	Tip Type	Packaging	Quantity
BT100 Series – 100 µL Filter Tip 	BT100	S³	PS R	10 racks of 96/pack
				5 packs/case
BT200 Series – 200 µL Filter Tip 	BT200	S³	PS R	10 racks of 96/pack
	BT200-ESP	S³	PS E	10 cards of 96/pack
BTXLT Series – 180 µL Extended Length Filter Tip 	BTXLT	NP	PS R	8 racks of 96/pack
				4 packs/case
BT200XLT Series – 200 µL Extended Length Filter Tip 	BT200XLT	NP	PS R	8 racks of 96/pack
				4 packs/case
BT300 Series – 300 µL Filter Tip 	BT300	S³	PS R	10 racks of 96/pack
				5 packs/case
BT1000 Series – 1000 µL Filter Tip 	BT1000.96	S³	PS R	8 racks of 96/pack
	BT1000.96.N	NP	PS R	4 packs/case
BT1250 Series – 1000-1250 µL Extended Length Filter Tip 	BT1250	S³	PS R	8 racks of 96/pack
	BT1250.N	NP	PS R	4 packs/case

FEATURES **S³** Sample Saving Surface **PS** Pre-Sterile **NP** Natural Polypropylene

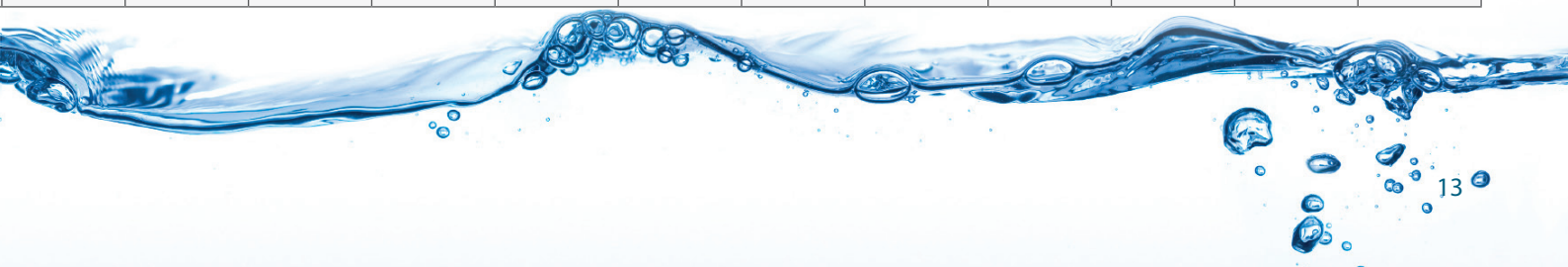
PACKAGING OPTIONS **R** Racked **E** ESP Reload System **B** Bulk
Empty rack needed (pg 20)

FILTER TIP COMPATIBILITY CHART

Neptunepipettetipsarecompatiblewithabroadrangeofindustryleadingpipettes.The tablebelowrepresentscompatibilityamongsomeofthe morerecognizedbrandsonthemarket.Compatibilityisdeterminedbasedonfitandfunction.Tipfitisdeterminedbytheabilitytomountandeject Neptunetipson tothepipette.Functionisdeterminedbytheabilitytocalibratethepipettewithinthemanufacturer'sspecificationsusingNeptune tips. For more information on tip compatibility, visit www.neptunescientific.com.

Pipettor Brand/Model	Biotix Cobra®	Brand Transferpette® S	Capp® Bravo	Capp® 12-Channel	Eppendorf Reference®	Eppendorf Research®	Eppendorf Research® Plus
BT10 Series – 10 µL Filter Tip 	BTX-2 BTX-10	0.5 - 10 µL	0.5 - 10 µL	0.5 - 10 µL	0.1 - 2.5 µL 0.5 - 10 µL 2 - 20 µL	0.1 - 2.5 µL 0.5 - 10 µL	0.1 - 2.5 µL 0.5 - 10 µL 2 - 20 µL
BT10XL Series – 10 µL Extended Length Tip 	BTX-2 BTX-10	0.5 - 10 µL	0.5 - 10 µL	0.5 - 10 µL	0.1 - 2.5 µL 0.5 - 10 µL 2 - 20 µL	0.1 - 2.5 µL 0.5 - 10 µL	0.1 - 2.5 µL 0.5 - 10 µL 2 - 20 µL
BT10E Series – 10 µL Eppendorf Style Filter Tip 	BTX-2 BTX-10				0.1 - 2.5 µL 0.5 - 10 µL 2 - 20 µL		
BT10F Series – 10 µL Finn Style Filter Tip 	BTX-20 BTX-100 BTX-200						
BT20 Series – 20 µL Filter Tip 	BTX-20 BTX-100 BTX-200	2 - 20 µL 10 - 100 µL 20 - 200 µL	5 - 50 µL 1 - 100 µL	5 - 50 µL 30 - 300 µL			
BT100 Series – 100 µL Filter Tip 	BTX-100 BTX-200 BTX-300/8/12	2 - 20 µL 10 - 100 µL 20 - 200 µL	5 - 50 µL 1 - 100 µL	5 - 50 µL 30 - 300 µL			
BT200 Series – 200 µL Filter Tip 	BTX-100 BTX-200 BTX-300/8/12	2 - 20 µL 10 - 100 µL 20 - 200 µL	5 - 50 µL 1 - 100 µL	5 - 50 µL 30 - 300 µL	2 - 20 µL 10 - 100 µL 50 - 200 µL	2 - 20 µL 10 - 100 µL	10 - 100 µL
BTXLT - 180 µL Filter Tip 	BTX-100 BTX-200						
BT200XLT Series - 200 µL Extended Length Filter Tip 	BTX-100 BTX-200						
BT300 Series – 300 µL Filter Tip 	BTX-200 BTX-300/8/12	2 - 20 µL 10 - 100 µL 20 - 200 µL	5 - 50 µL 10 - 100 µL	5 - 50 µL 30 - 300 µL	50 - 200 µL	20 - 200 µL 10 - 100 µL 30 - 300 µL /12	
BT1000 Series – 1000 µL Filter Tip 	BTX-1000				100 - 1000 µL	100 - 1000 µL	100 - 1000 µL
BT1250 Series – 1000-1250 µL Extended Length Filter Tip 	BTX-1000				100 - 1000 µL		100 - 1000 µL

Eppendorf Xplorer Plus	Finnpipette™ F1	Finnpipette™ F2	Finnpipette™ Digital	Gilson® PIPETMAN® L	Hamilton® SoftGrip	Nichiryo Nichipet EX II	Sartorius/Biohit Proline®	Sartorius/Biohit Proline® Plus	Sartorius/Biohit mLINE®	Sartorius/Biohit Proline® Plus 8- and 12-Channel	VWR® Ultra High Performance
0.5 - 10 µL	1 - 10 µL		0.5 - 10 µL /8	P2 P10	0.2 - 2 µL 1 - 10 µL	0.5 - 10 µL	0.5 - 10 µL		M3 M10	0.5 - 10 µL	0.1 - 2 µL 0.5 - 10 µL
0.5 - 10 µL	1 - 10 µL		0.5 - 10 µL /8	P2 P10"	0.2 - 2 µL 1 - 10 µL	0.5 - 10 µL	0.5 - 10 µL		M3 M10	0.5 - 10 µL	0.1 - 2 µL 0.5 - 10 µL
			0.5 - 10 µL /8	P2 P10			0.5 - 10 µL		M10		
				P20 P100 P200				10 - 100 µL 20 - 200 µL	M100 M200		
				P20 P100 P200				10 - 100 µL 20 - 200 µL	M20 M100 M200	10 - 100 µL 30 - 300 µL	
				P20 P100 P200				10 - 100 µL 20 - 200 µL	M20 M100 M200	10 - 100 µL 30 - 300 µL	
	2 - 20 µL 5 - 50 µL /12 20 - 200 µL	5 - 50 µL 10 - 100 µL	20 - 200 µL 5 - 50 µL /8	P20 P100 P200				10 - 100 µL 20 - 200 µL	M20 M100 M200	10 - 100 µL 30 - 300 µL	
				P100 P200							
				P100 P200							
15 - 300 µL	10 - 100 µL	10 - 100 µL	50 - 300 µL /8	P200				10 - 100 µL 20 - 200 µL 30 - 300 µL	M100 M200 M300 /12	10 - 100 µL 30 - 300 µL	
50 - 1000 µL	100 - 1000 µL	100 - 1000 µL		P1000	100 - 1000 µL	100 - 1000 µL	200 - 1000 µL		M1000		100 - 1000 µL
50 - 1000 µL	100 - 1000 µL	100 - 1000 µL		P1000	100 - 1000 µL	100 - 1000 µL	200 - 1000 µL		M1000		100 - 1000 µL



PIPETTE TIPS



FEATURES:

- Eco-friendly racks designed for minimum plastic consumption
- Easy-insertion, easy-ejection
- S³ technology assures the highest recovery of your precious sample

	Neptune PN	Tip Type	Packaging	Quantity
2040 Series – 10 µL Micro Tip 	2040	S ³	B	1000 tips/bag 20 bags/case
	2040.N	NP	B	1000 tips/bag 20 bags/case
	2042	S ³	R	10 racks of 96/pack 5 packs/case
	2042.S	S ³	PS R	10 racks of 96/pack 5 packs/case
	2042.N	NP	R	10 racks of 96/pack 5 packs/case
	2042.NS	NP	PS R	10 racks of 96/pack 5 packs/case
	2047	S ³	E	20 cards of 96/pack 4 packs/case
	2047.S	S ³	PS E	20 cards of 96/pack 4 packs/case
	2047.N	NP	E	20 cards of 96/pack 4 packs/case
	2047.NS	NP	PS E	20 cards of 96/pack 4 packs/case
2340 Series – 10 µL Extended Length Tip 	2340	NP	B	1000 tips/bag 20 bags/case
	2342	NP	R	10 racks of 96/pack 5 packs/case
	2342.S	NP	PS R	10 racks of 96/pack 5 packs/case
	2340S3	S ³	B	1000 tips/bag 20 bags/case
	2342S3	S ³	R	10 racks of 96/pack 5 packs/case
	2342S3.S	S ³	PS R	10 racks of 96/pack 5 packs/case
	2347	S ³	E	10 cards of 96/pack 10 packs/case
	2347.S	S ³	PS E	10 cards of 96/pack 10 packs/case
	2347.N	NP	E	10 cards of 96/pack 10 packs/case
	2347.NS	NP	PS E	10 cards of 96/pack 10 packs/case

FEATURES S³ Sample Saving Surface PS Pre-Sterile NP Natural Polypropylene

PACKAGING OPTIONS R Racked E ESP Reload System B Bulk

Empty rack needed (pg 20)

	Neptune PN	Tip Type	Packaging	Quantity
2140 Series – 10 µL Eppendorf Style Tip 	2140	S³	B	1000 tips/bag 20 bags/case
	2142	S³	R	10 racks of 96/pack 5 packs/case
	2142.S	S³	PS R	10 racks of 96/pack 5 packs/case
2100 Series – 200 µL Universal Tip 	2100.N	NP	B	1000 tips/bag 10 bags/case
	2100	S³	B	1000 tips/bag 10 bags/case
	2102.N	NP	R	10 racks of 96/pack 5 packs/case
	2102.NS	NP	PS R	10 racks of 96/pack 5 packs/case
	2102	S³	R	10 racks of 96/pack 5 packs/case
	2102.S	S³	PS R	10 racks of 96/pack 5 packs/case
	2101.N	NP	RS	5 inserts of 192/pack 5 packs/case
	2101	S³	RS	5 inserts of 192/pack 5 packs/case
	2107.N	NP	E	10 cards of 96/pack 10 packs/case
	2107	S³	E	10 cards of 96/pack 10 packs/case
	2107.S	S³	PS E	10 cards of 96/pack 10 packs/case
2100 Series – 200 µL Yellow Universal Tip 	2100.YN	NP	B	1000 tips/bag 10 bags/case
	2100.Y	S³	B	1000 tips/bag 10 bags/case

FEATURES **S³** Sample Saving Surface **PS** Pre-Sterile **NP** Natural Polypropylene
PACKAGING OPTIONS **R** Racked **RS** Rack & Stack **E** ESP Reload System
Empty rack needed (pg 20) **B** Bulk

PIPETTE TIPS

	Neptune PN	Tip Type	Packaging	Quantity
2016 Series – 200 µL Extended Length Gel Tip 	2016	NP	R	5 racks of 204/pack 5 packs/case
	2016.S	NP	PS R	5 racks of 204/pack 5 packs/case
2150 Series – 200 µL Extended Length Tip 	2152.96.N	NP	R	8 racks of 96/pack, 4 packs/case
	2152.96.NS	NP	PS R	8 racks of 96/pack, 4 packs/case
2090 Series – 300 µL Universal Tip 	2090.N	NP	B	1000 tips/bag 10 bags/case
	2090	S ³	B	1000 tips/bag 10 bags/case
	2092.N	NP	R	10 racks of 96/pack 5 packs/case
	2092.NS	NP	PS R	10 racks of 96/pack 5 packs/case
	2092	S ³	R	10 racks of 96/pack 5 packs/case
	2092.S	S ³	PS R	10 racks of 96/pack 5 packs/case
	2097.N	NP	E	10 cards of 96/pack 10 packs/case
	2097.NS	NP	PS E	10 cards of 96/pack 10 packs/case
	2097	S ³	E	10 cards of 96/pack 10 packs/case
	2097.S	S ³	PS E	10 cards of 96/pack 10 packs/case
2110 Series – 1000 µL Blue Traditional Shaped Tip 	2110.B	NP	B	1000 tips/bag 4 bags/case

FEATURES **S³** Sample Saving Surface **PS** Pre-Sterile **NP** Natural Polypropylene

PACKAGING OPTIONS **R** Racked **E** ESP Reload System **B** Bulk
Empty rack needed (pg 20)

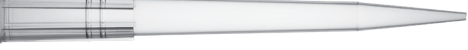
	Neptune PN	Tip Type	Packaging	Quantity
2160 Series – 1000 µL Universal Tip 	2160	NP	B	1000 tips/bag 4 bags/case
	2162.96	NP	R	8 racks of 96 tips/pack, 4 packs/case
	2162.96.S	NP	PS R	8 racks of 96 tips/pack, 4 packs/case
	2167.96	NP	E	10 cards of 96 tips/pack 5 packs/case
	2167.96.S	NP	PS E	10 cards of 96 tips/pack 5 packs/case
2370 Series – 1000-1250 µL Extended Length Tip 	2370	S ³	B	1000 tips/bag 4 bags/case
	2370.N	NP	B	1000 tips/bag 4 bags/case
	2372.N	NP	R	8 racks of 96/pack 4 packs/case
	2372.NS	NP	PS R	8 racks of 96/pack 4 packs/case
	2372	S ³	R	8 racks of 96/pack 4 packs/case
	2372.S	S ³	PS R	8 racks of 96/pack 4 packs/case
	2377.N	NP	E	10 cards of 96/pack 5 packs/case
	2377.NS	NP	PS E	10 cards of 96/pack 5 packs/case
	2377	S ³	E	10 cards of 96/pack 5 packs/case
	2377.S	S ³	PS E	10 cards of 96/pack 5 packs/case

FEATURES **S³** Sample Saving Surface **PS** Pre-Sterile **NP** Natural Polypropylene

PACKAGING OPTIONS **R** Racked **E** ESP Reload System **B** Bulk
Empty rack needed (pg 20)

PIPETTE TIP COMPATIBILITY CHART

Neptunepipettetipsarecompatiblewithabroadrangeofindustryleadingpipettes.Thetablebelowrepresentscompatibilityamongsomeofthe morerecognizedbrands onthemarket.Compatibilityisdeterminedbasedonfitandfunction.Tipfitisdeterminedbytheabilitytomountand eject Neptunetipson tothepipette.Functionisdeterminedbytheability tocalibratethepipettewithinthemanufacturer's specifications using Neptune tips. For more information on tip compatibility, visit www.neptunescientific.com.

Pipettor Brand/Model	Biotix Cobra®	Brand Transferpette® S	Capp® Bravo	Capp® 12-Channel	Eppendorf Reference®	Eppendorf Research®	Eppendorf Research® Plus
2040 Series – 10 µL Micro Tip 	BTX-2 BTX-10				0.1 - 2.5 µL 0.5 - 10 µL 2 - 20 µL	0.5 - 10 µL	
2340 Series – 10 µL Extended Length Tip 	BTX-2 BTX-10				0.1 - 2.5 µL 0.5 - 10 µL 2 - 20 µL	0.5 - 10 µL	0.5 - 10 µL
2140 Series – 10 µL Eppendorf Style Tip 	BTX-2 BTX-10				0.1 - 2.5 µL 0.5 - 10 µL 2 - 20 µL		
2100 Series – 200 µL Universal Tip 	BTX-100 BTX-200 BTX-300/8 /12	2 - 20 µL 10 - 100 µL 20 - 200 µL	5 - 50 µL 1 - 100 µL	5 - 50 µL 30 - 300 µL	2 - 20 µL 10 - 100 µL 50 - 200 µL	2 - 20 µL 10 - 100 µL	10 - 100 µL
2016 Series – 200 µL Extended Length Gel Tip* 	BTX-100 BTX-200 BTX-300/8 /12						
2150 Series – 200 µL Extended Length Tip* 	BTX-100 BTX-200 BTX-300/8 /12						
2090 Series – 300 µL Universal Tip 	BTX-200 BTX-300/8 /12	20 - 200 µL	5 - 50 µL 1 - 100 µL	5 - 50 µL 30 - 300 µL	50 - 200 µL	30 - 300 µL /12	
2110 Series – 1000 µL Traditional Shaped Tip* 	BTX-1000				100 - 1000 µL	100 - 1000 µL	100 - 1000 µL
2160 Series – 1000 µL Universal Tip* 	BTX-1000				100 - 1000 µL	100 - 1000 µL	100 - 1000 µL
2370 Series – 1000-1250 µL Extended Length Tip 	BTX-1000	100 - 1000 µL			100 - 1000 µL	100 - 1000 µL	100 - 1000 µL

*Pipette tip series marked with asterisk are not compatible with multichannel pipettors.



Eppendorf Xplorer Plus	Finnpipette™ F1	Finnpipette™ F2	Finnpipette™ Digital	Gilson® PIPETMAN® L	Hamilton® SoftGrip	Nichiryo Nichipet EX II	Sartorius/Biohit Proline®	Sartorius/Biohit Proline® Plus	Sartorius/Biohit mLINE®	Sartorius/Biohit Proline® Plus 8- and 12-Channel	VWR® Ultra High Performance
			0.5 - 10 µL	P2 P10	0.2 - 2 µL 1 - 10 µL	0.5 - 10 µL	0.5 - 10 µL		M3 M10		0.1 - 2 µL 0.5 - 10 µL
			0.5 - 10 µL	P2 P10	0.2 - 2 µL 1 - 10 µL	0.5 - 10 µL			M3 M10		0.1 - 2 µL 0.5 - 10 µL
			20 - 200 µL						M10 /12		
	2 - 20 µL 5 - 50 µL /12 20 - 200 µL	5 - 50 µL 10 - 100 µL	20 - 200 µL 5 - 50 µL /8	P20 P100 P200				10 - 100 µL 20 - 200 µL	M20 M100 M200	10 - 100 µL 30 - 300 µL	
				P100 P200							
				P100 P200							
15 - 300 µL	10 - 100 µL	10 - 100 µL	50 - 300 µL /8	P200				10 - 100 µL 20 - 200 µL 30 - 300 µL	M100 M200 M300 /12	10 - 100 µL 30 - 300 µL	
50 - 1000 µL	100 - 1000 µL	100 - 1000 µL		P1000	100 - 1000 µL	100 - 1000 µL	200 - 1000 µL		M1000		100 - 1000 µL
50 - 1000 µL	100 - 1000 µL	100 - 1000 µL		P1000	100 - 1000 µL	100 - 1000 µL	200 - 1000 µL		M1000		100 - 1000 µL
50 - 1000 µL 50 - 1200 µL/8	100 - 1000 µL	100 - 1000 µL		P1000	100 - 1000 µL	100 - 1000 µL	200 - 1000 µL		M1000		100 - 1000 µL



SPARE TRAYS

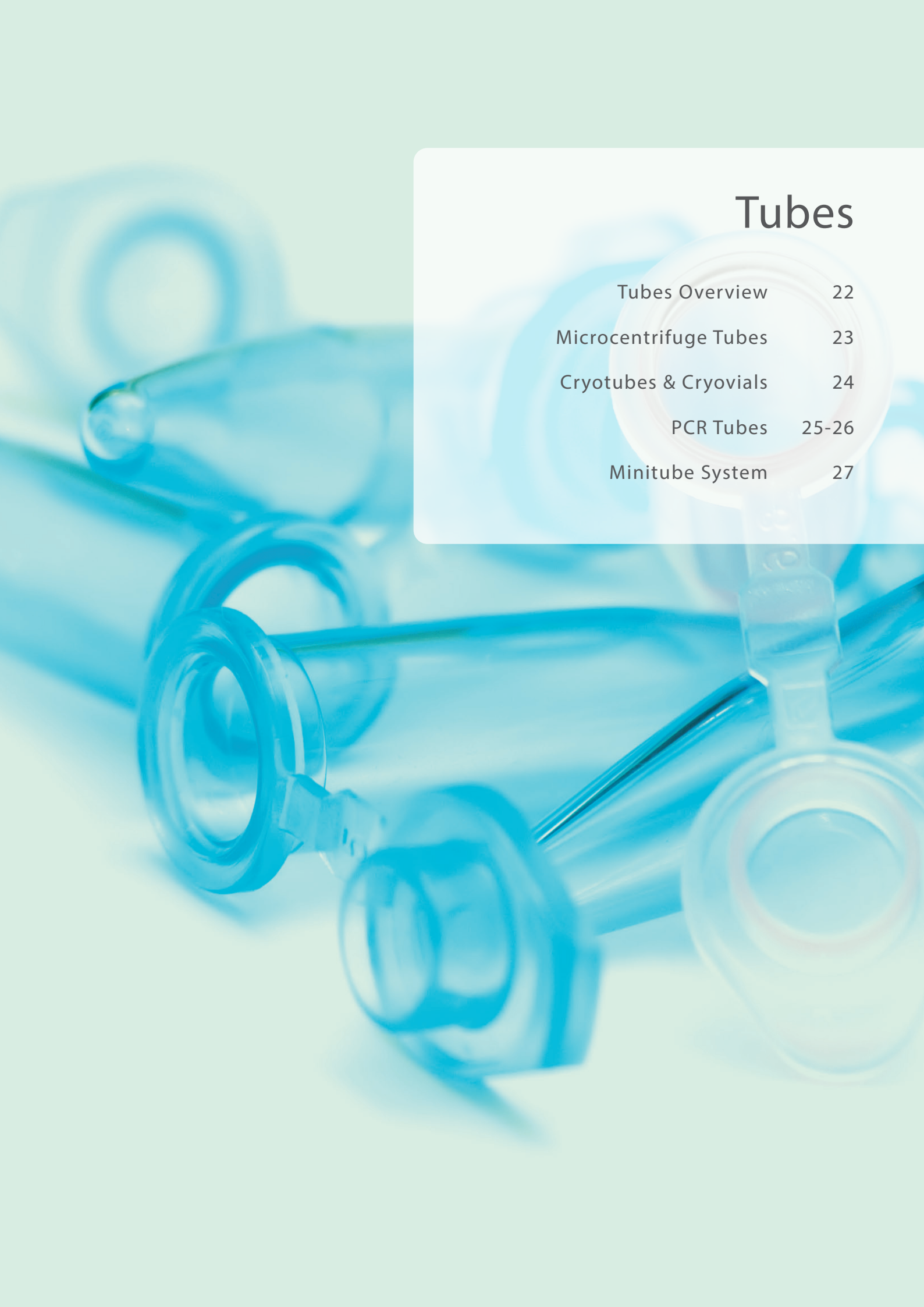


Manufactured from recycled polypropylene and developed to use the least amount of plastic. These spare trays are designed to fit Neptune's 10 µL, 10XL, 20 µL, 200 µL, 300 µL, 1000 µL and 1000XL pipette tips.

FEATURES:

- Recyclable tray
- Maximum space saving design
- Less waste – reduce plastic waste by up to 90% over conventional trays in combination with our patented ESP reload system

Neptune PN	Packaging	Quantity	Compatible Tips
2042.T	Tray with insert card for bulk tips	1 tray 50 trays/case	2040 Series
2047.T	Tray without insert card for ESP reload	1 tray 48 trays/case	2040 Series
2342.T	Tray with insert card for bulk tips	1 tray 50 trays/case	2340 Series 2140 Series
2347.T	Tray without insert card for ESP reload	1 tray 50 trays/case	2340 Series
2102.T	Tray with insert card for bulk tips	1 tray 50 trays/case	2100 Series
2107.T	Tray without insert card for ESP reload	1 tray 48 trays/case	2100 Series BT20 Series
2092.T	Tray with insert card for bulk tips	1 tray 50 trays/case	2090 Series
2097.T	Tray without insert card for ESP reload	1 tray 50 trays/case	2090 Series BT200 Series
2162.T	Tray with insert card for bulk tips & ESP reload	1 tray 30 trays/case	2110 Series 2160 Series
2372.T	Tray with insert card for bulk tips	1 tray 32 trays/case	2370 Series
2377.T	Tray without insert card for ESP reload	1 tray 32 trays/case	2370 Series

The background of the page is a soft-focus photograph of various laboratory glassware, including several clear plastic tubes and vials with caps, arranged in a way that creates a sense of depth and scientific context. The colors are muted, with a light blue and green palette.

Tubes

Tubes Overview	22
Microcentrifuge Tubes	23
Cryotubes & Cryovials	24
PCR Tubes	25-26
Minitube System	27

TUBES OVERVIEW



0.6 mL
Microcentrifuge
Tubes

page 23



1.6 mL
Microcentrifuge
Tubes

page 23



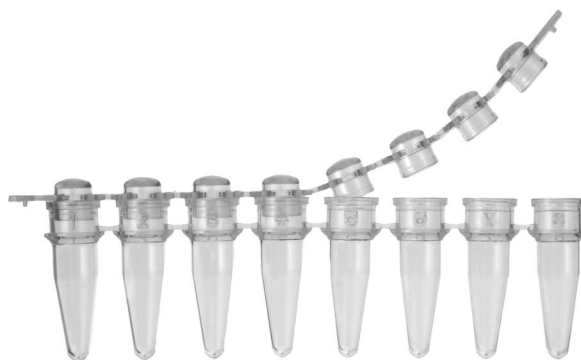
2.0 mL
Microcentrifuge
Tubes

page 23



Cryotubes & Cryovials

page 24



0.2 mL PCR Tubes

pages 25-26

Microcentrifuge Tubes

Neptune offers a full line of quality tubes for laboratory use. Neptune microcentrifuge tubes are ideal for a wide array of laboratory procedures and can withstand up to 20,000 RCF. We also offer a fine selection of cryovials and cryotubes designed for cryogenic sample storage. Available with and without locking bases, these tubes feature special thread designs and silicone o-rings to ensure sample viability for long term storage.

Minitube System

The minitube system by Neptune is designed for labs in need of the functionality of a tube, but require the 96-well format for robotics. The system features a standard 8x12 format with pre-racked 1.1 mL single or 8 strip mini-tubes. Product is available in both pre-sterile and non-sterile formats.

PCR Tubes

Neptune offers a collection of high quality 0.2 to 0.6 mL thin walled tubes specifically manufactured for PCR applications. Thin walled tubes improve conduction between the PCR reaction and the thermal cycler block, improving cycling efficiency. The clarity of the thin walled tubes enables visualization of components being mixed. Our strip tubes are available with attached caps to reduce splash and cross contamination, or with detached caps for high throughput labs.

All of our pre-sterile packaged products are electron beam irradiated and are certified RNase, DNase and Endotoxin free.

MICROCENTRIFUGE TUBES

0.6, 1.6, and 2.0 mL Microcentrifuge Tubes

These flat-cap graduated tubes are frosted on the top and sides for convenient sample labeling. Graduations from 0.1 mL to 2.0 mL make them ideal for many uses. Assorted colors are mixed in a unit pack.



FEATURES:

- Labeled graduations at 100 µL
- Spin: 20,000 RCF
- Frosted side & cap for sample labeling
- Made of virgin polypropylene
- Flat Cap
- DNase, RNase and Endotoxin-Free
- Autoclavable (121°C, 15 psi, 15 minutes)

	Neptune PN	Tube Type	Packaging	Quantity
0.6 mL Graduated Microcentrifuge Tubes 	3735.X	NP	B TC	1000 tubes/pack 10 packs/case
	3735.A.X	NP AC	B TC	1000 tubes/pack 10 bags/case
	3735.S.X	NP	PS B TC	500 tubes/pack 10 bags/case
	3735.AS.X	NP AC	PS B TC	500 tubes/pack 10 packs/case
1.6 mL Graduated Microcentrifuge Tubes – Easy Seal Series 	4445.X	NP	B TC	500 tubes/pack 10 packs/case
	4445.A.X	NP AC	B TC	10 bags of 50 tubes/pack 10 packs/case
	4445.S.X	NP	PS B TC	10 bags of 50 tubes/pack 10 packs/case
	4445.AS.X	NP AC	PS B TC	10 bags of 50 tubes/pack 10 packs/case
1.6 mL Graduated Microcentrifuge Tubes – Tight Seal Series 	3745.X	NP	B TC	500 tubes/pack 10 packs/case
	3745.A.X	NP AC	B TC	500 tubes/pack 10 packs/case
	3745.S.X	NP	PS B TC	250 tips/pack 10 packs/case
	3745.AS.X	NP AC	PS B TC	250 tubes/pack 10 packs/case
2.0 mL Graduated Microcentrifuge Tubes 	3765.X	NP	B TC	500 tubes/pack 10 bags/case
	3765.A.X	NP AC	B TC	500 tubes/pack 10 bags/case
	3765.S.X	NP	PS B TC	250 tubes/pack 10 packs/case

FEATURES PS Pre-Sterile NP Natural Polypropylene AC Assorted Colors: Blue, Green, Yellow, Orange, Red, Lavender
 PACKAGING B Bulk TC Tubes & Caps AC Assorted Colors: Blue, Green, Yellow, Red, Lavender

CRYOTUBES & CRYOVIALS

Cryotubes

Neptune cryotubes offers significant advantages over traditional cryovial storage. Neptune cryotubes are manufactured from virgin polypropylene with silicone O-rings to seal at temperatures from -196 to $+121^{\circ}\text{C}$. Dimensions: 0.51×1.85 in. (13×47 mm). Can be centrifuged up to $17,000$ g.

	Neptune PN	Tube Type	Packaging	Quantity
0.5 mL 	3470.X	NP	PS B TC	10 bags of 50/case
1.5 mL 	3471.X	NP	PS B TC	10 bags of 50/case
1.8 mL 	3472.X	NP	PS B TC	10 bags of 50/case
 Cap Inserts Assorted Colors	3121.A.X	AC	B	500 inserts/case

FEATURES PS Pre-Sterile NP Natural Polypropylene PACKAGING B Bulk TC Tubes & Caps AC Assorted Colors

Cryovials

Neptune cryovials are designed for the storage of biological material at temperatures as low as -19°C^* . The cap features a long skirt for one hand aseptic techniques and a specially designed lip inside the cap ensures a leak-proof seal. The cap and tube are made of virgin polypropylene with matched thermal coefficient to further ensure leak-proof performance. In addition, a silicone seal is fitted inside the cap to ensure a positive seal. Diameter: 0.492 in. (12.5 mm) Autoclavable.

	Neptune PN	Tube Type	Packaging	Quantity
2.0 mL 	3102.X	NP	PS B TC	100 tubes/bag 10 bags/case
3.0 mL 	3103.X	NP	PS B TC	100 tubes/bag 10 bags/case
4.0 mL 	3104.X	NP	PS B TC	100 tubes/bag 10 bags/case
 Cap Inserts Assorted Colors	3120.A.X	AC	B	500 inserts/case

FEATURES PS Pre-Sterile NP Natural Polypropylene PACKAGING B Bulk TC Tubes & Caps AC Assorted Colors
Using gamma radiation

* Gaseous phase of liquid nitrogen

Our Neptune 0.2 mL microtubes for PCR are made of high quality virgin polypropylene and feature thin walls for efficient heat transfer. They are available in single tube format, strip tubes with attached caps and with separate caps. Neptune PCR tubes are compatible with most leading thermal cyclers. Tubes and caps are available in assorted colors.

FEATURES:

- Thin walled tube for best heat transfer
- Made of virgin polypropylene
- Domed and flat caps available
- DNase, RNase and Endotoxin-Free

	Neptune PN	Tube Type	Packaging	Quantity
0.2 mL PCR Tubes with Flat Cap 	3423.X	NP CL	B TC	1000 tubes/pack 10 packs/case
	3423.A.X	NP AC	B TC	10 bags of 100/pack 10 packs/case
	3423.S.X	NP CL	PS B TC	10 bags of 100/pack 10 packs/case
	3423.AS.X	NP AC	PS B TC	10 bags of 100/pack 10 packs/case
0.2 mL PCR Tubes with Domed Cap 	3425.X	NP CL	B TC	1000 tubes/pack 10 packs/case
	3425.A.X	NP AC	B TC	10 bags of 100/pack 10 packs/case
	3425.S.X	NP CL	PS B TC	10 bags of 100/pack 10 packs/case
	3425.AS.X	NP AC	PS B TC	10 bags of 100/pack 10 packs/case
0.2 mL PCR 8-Strip Tubes with attached Domed Cap 	3428.8.X	NP CL	B TC	10 bags of 12/pack 10 packs/case
	3428.8A.X	NP AC	B TC	10 bags of 12/pack 10 packs/case
	3728.8S.X	NP CL	PS B TC	10 bags of 12/pack 10 packs/case
	3728.8AS.X	NP AC	PS B TC	10 bags of 12/pack 10 packs/case

FEATURES PS Pre-Sterile NP Natural Polypropylene CL Clear AC Assorted Colors: Blue, Green, Lavender, Red, Yellow
 PACKAGING OPTION B Bulk T Tubes Only C Caps Only TC Tubes & Caps AC Assorted Colors: Blue, Orange, Lavender, Red, Yellow

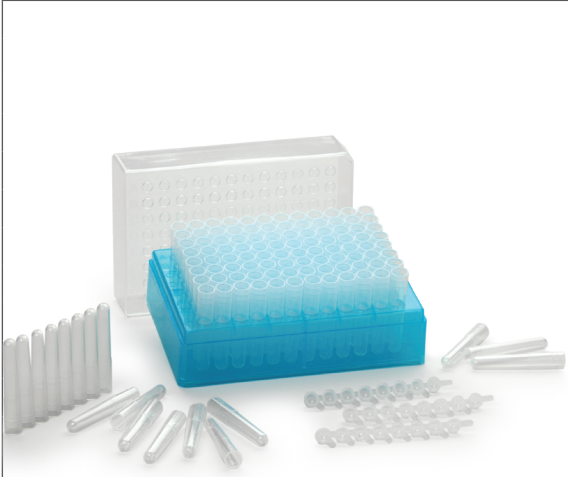
	Neptune PN	Tube Type	Packaging	Quantity
0.2 mL PCR8-Strip Tubes with Separate Strip Caps 	3426.8.X	NP CL	B T	5 bags of 25/pack 10 packs/case
	3426.8A.X	NP AC	B T	5 bags of 25/pack 10 packs/case
	3426.8S.X	NP CL	PS B T	5 bags of 25/pack 10 packs/case
	3426.8AS.X	NP AC	PS B T	5 bags of 25/pack 10 packs/case
	3427.8.X	NP CL	B C	125 strip caps/pack* 10 packs/case
	3427.8A.X	NP AC	B C	125 strip caps/pack* 10 packs/case
	3427.8S.X	NP CL	PS B C	125 strip caps/pack* 10 packs/case
	3427.8AS.X	NP AC	PS B C	125 strip caps/pack* 10 packs/case
	3459.8.X	NP CL	B TC	5 bags of 25/pack 10 packs/case

FEATURES PS Pre-Sterile NP Natural Polypropylene CL Clear AC Assorted Colors: Blue, Green, Lavender, Red, Yellow
 PACKAGING OPTIONS B Bulk T Tubes Only C Caps Only TC Tubes & Caps AC Assorted Colors: Blue, Orange, Lavender, Red, Yellow

Minitube System

This system provides you with pre-racked 1.1 mL minitubes in standard 96-well format, with single tubes or strips of 8. This is an ideal system for microplate-to-tube transfer, and features a standard 8x12 format. The alphanumeric labeled, non-reversing rack and lid ensure positive sample identification. Condensation rings above

each tube minimize crosscontamination between wells, and the system is completely autoclavable (except for optional mini-cap strips). The rack base is fully compatible with popular robotic instruments.

	Neptune PN	Tube Type	Packaging	Quantity
	2600.X	NP	B T	960 tubes/bag 5 bags/case
	2600.8.X	NP	B T	120 8-strips/bag 5 bags/case
	2601.X	NP	R T	10 trays of 96/pack 5 packs/case
	2601.S.X	NP	PS R T	10 trays of 96/pack 5 packs/case
	2601.8.X	NP	R T	10 trays of 96/pack 5 packs/case
	2601.8S.X	NP	PS R T	10 trays of 96/pack 5 packs/case
	2602.8.X	NP	B C	1208-strip caps/pack 5 packs/case
	2602.8S.X	NP	PS B C	1208-strip caps/pack 5 packs/case

FEATURES PS Pre-Sterile NP Natural Polypropylene PACKAGING B Bulk R Racked C Caps Only T Tubes Only

Minitubes & Microtubes

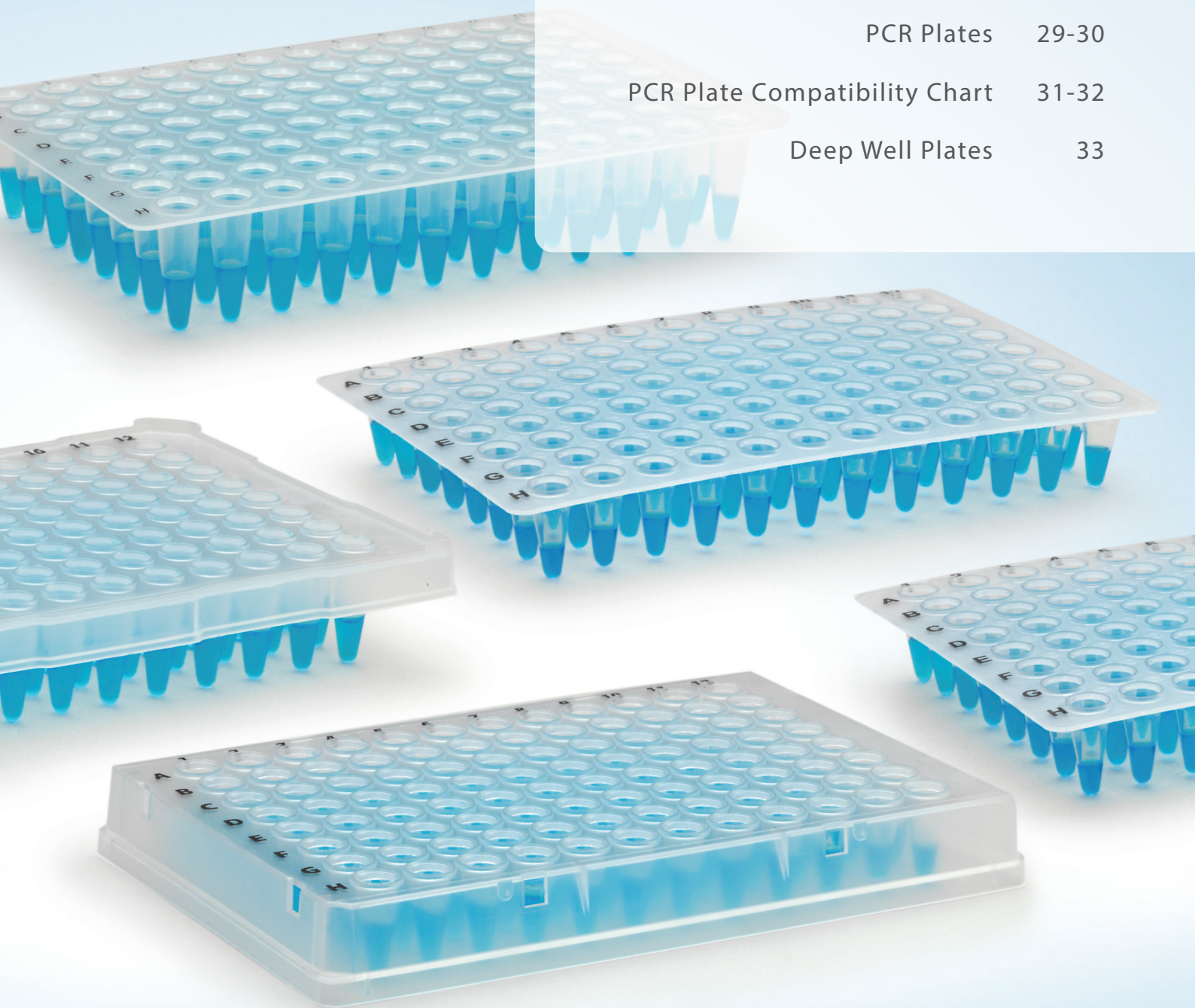


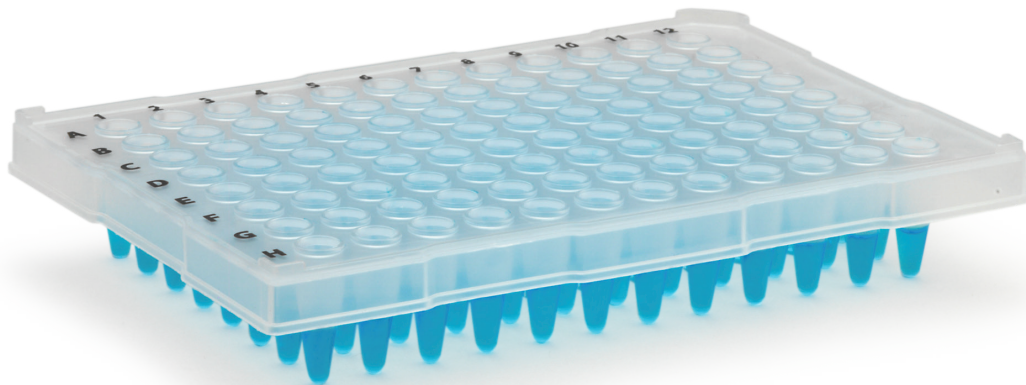
Plates

PCR Plates 29-30

PCR Plate Compatibility Chart 31-32

Deep Well Plates 33



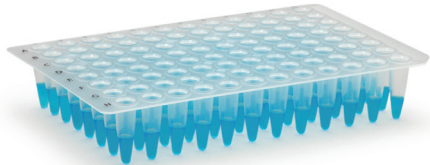
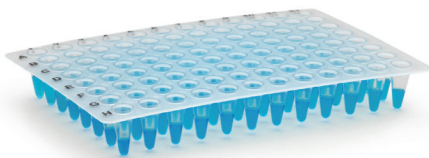
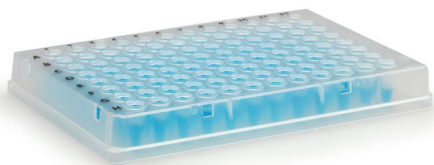


PCR Plates

Neptune offers an expansive line of plates for high throughput PCR and related lab procedures.

All PCR plates are molded from high performance polypropylene and feature thin walls for efficient heat transfer. Compatible with many of the latest thermal cyclers on the market, our Neptune PCR plates are available in 96-well low profile, non-skirted, semi-skirted and full skirted versions. Please refer to our plate selection chart (see pages 31-32) for specific thermal cycler compatibility.

PCR PLATES

	Neptune PN	Packaging	Quantity
Full Profile Plate 	3730.X	B	10 plates/pack 10 packs/case
Low Profile Plate 	3438.X	B	20 plates/pack 5 packs/case
Fully Skirted Plate 	3732.X	B	10 plates/pack 10 packs/case
Semi Skirted Plate 	3742.X	B	10 plates/pack 10 packs/case
8 Strip Caps for PCR plates 	3731.X	B	125 strips/pack
			10 packs/case

B Bulk

Please refer to the PCR plate compatibility chart on pages 30-31

PACKAGING

PCR PLATE COMPATIBILITY CHART

Plate PN		3730.X	3438.X	3742.X	3732.X
Standard well (Overall height approx. 21 mm, max capacity > 350 µL)		●		●	
Low well (Overall height approx. 16 mm, max capacity > 200 µL)			●		●
Applied Biosystems					
Thermal Cyclers	2700	●		●	
	2720				
	6100				
	9600	●		●	
	9700	●		●	
	9800 "Fast"				
	Veriti 0.1mL				
	Veriti 0.2mL				
	Veriti 384				
"Real Time" Thermal Cyclers	5700	●		●	
	PRISM 7000	●		●	
	7300	●		●	
	7500	●		●	
	7500 "Fast"				
	7700	●		●	
	7900HT	●		●	
	7900HT 384 Well				
	StepOnePlus				
	ViiA 7				
	QuantStudio 12k Flex				
Sequencers	PRISM 310	●		●	
	PRISM 3100	●		●	
	3130 (XL)	●		●	
	3700	●		●	
	PRISM 3730 (XL)	●		●	
	3500 (XL)				
Amersham					
Sequencers	MegaBACE 500				●
	MegaBACE 1000				●
	MegaBACE 4000				
Beckman					
Sequencers	CEQ	●			
Biometra					
Thermal Cyclers	Uno	●	●	●	●
	Uno II	●	●	●	
	T1 Thermal Cycler	●	●	●	●
	Tgradient	●	●	●	●
	Trobot	●	●	●	●
Bio-Rad/MJ Research					
Thermal Cyclers	Gene Cyler	●		●	
	PTC-100	●	●		●
	PTC-200	●	●		●
	PTC-2250 Tetrad	●	●		●
	Dyad/Dyad Disciple	●	●		●
	iCycler	●			●
	Mycycler	●			
"Real Time" Thermal Cyclers	Opticon/Opticon2	●	●		●
	Chromo-4		●		●
	iCycler	●			●
	MyiQ	●			●
	iQ5	●			●
Sequencers	BaseStation				●
Corbett Research (Qiagen)					
Thermal Cyclers	Palm Cycler 96	●			●
	Palm Cycler 384				

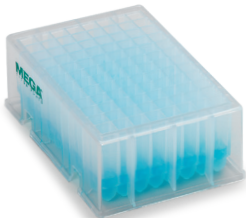
PCR PLATES COMPATIBILITY CHART CONTINUED

Plate Part Number		3730.X	3438.X	3742.X	3732.X
Eppendorf					
Thermal Cyclers	Mastercycler	●	●		●
	Mastercycler ep	●	●	●	●
	Mastercycler Gradient	●		●	●
	Mastercycler M384				
"Real Time" Thermal Cyclers	MastercyclerepRealplex		●		●
Ericom					
Thermal Cyclers	Power Block I	●	●	●	
	Deltacycler I	●	●		
	Deltacycler II	●	●	●	
	Single Block	●	●		
	Twin Block	●	●		
Esco					
Thermal Cyclers	Swift	●			
	Gene	●			●
	Genius	●			●
G-Storm					
Thermal Cyclers	GS1	●	●	●	
	GS2	●	●	●	
	GS4	●	●	●	
	GSX	●	●	●	
	GSXs	●	●	●	
MWG					
Thermal Cyclers	Primus 96	●	●	●	●
	Primus 384				
Roche					
"Real Time" Thermal Cyclers	LightCycler 96				
	LightCycler 480				
Stratagene					
Thermal Cyclers	Robocycler 96	●			
	Robocycler Gradient	●	●	●	●
	SureCycler 8800		●		
"Real Time" Thermal Cyclers	Mx4000	●	●	●	
	Mx3005P	●	●	●	
TaKaRa					
Thermal Cyclers	TP240				●
	TP3000	●	●	●	●
Techne					
Thermal Cyclers	Touchgene	●	●	●	
	Cyclogene	●	●	●	
	Genius	●	●	●	
	Genius Quad	●	●	●	
	Genius (TC412)	●	●	●	●
	Flexigene	●	●	●	●
	Touchgene X	●	●		●
	Touchgene Gradient (TC512)	●	●	●	●
"Real Time" Thermal Cyclers	Quantica		●		●
Thermo Hybaid					
Thermal Cyclers	PCR Sprint	●	●	●	●
	MBS Satellite System	●	●	●	●
	Px2	●	●	●	●
	PxE	●	●	●	●
	PCR Express	●	●	●	●
	Omni-E	●	●	●	●
	Touchdown	●	●	●	●
	Omnigene	●	●	●	●
Transgenomic					
Sequencers	WAVE System				●



Megatiter™ Plate

Neptune's 2.2mL plate offers the working volume of a culture tube and the convenience of a 96-well format. With a conical bottom, it provides easy sample retrieval.

	Neptune PN	Packaging	Quantity
Megatiter Plate 	2405.X	B	24 plates/case
	2405.S.X	PS 1/bag	24 plates/case

PACKAGING **PS** Pre-Sterile **B** Bulk



Autoclaving: Staying within the Parameters

When Autoclaving Neptune products, please stay within the parameters specified below:

Heat Exposure Recommendations for Autoclaving

Setting Temperature Time

121°C 10-15 minutes

Pressure at 15 PSI (approximately 1 atm.)

CAUTION: Over-Autoclaving Distortion

Pipette tips and tubes are precision manufactured to tolerances of less than 0.005 inches. Over-autoclaving produces unseal distortions caused by excess heat and/or exposure time. Tubes that “pop” during boiling and loose fitting bent tips are often the result. To limit distortion, all tubes should be open during autoclaving and tips should be racked in trays. Do not exceed the time and temperature recommendations shown in the table. Excessive heating can also produce color changes in tubes or tray hot-stamped logos. **Do not “overcook” your plastic products.**

RCF Ratings for Centrifuge Tubes

Two important specifications for centrifuges are Revolutions Per Minute (RPM) and Relative Centrifugal Force (RCF). Of the two specifications, Relative Centrifugal Force (RCF), or G force, is a standard unit of measure across all centrifuges and can be calculated using the formula below. Setting the RCF too high can cause a centrifuge tube to crack, and shatter. It is imperative that the end user confirms their RCF setting before beginning centrifugation.

RCF Value Equation

$$RCF = 0.00001118 \times \text{radius} \times \text{RPM}^2$$

RCF: Relative centrifugal force

Radius: rotor radius in centimeters

RPM: maximum RPM

Cryogenic Storage for Neptune Cryovials and Cryotubes

Liquid vs. Vapor Phase Storage

All cryogenic containers are designed for vapor phase storage. We advise against routine liquid phase storage because of the explosive potential of liquid N₂ when exposed to room temperatures.



Pipette Tips

For more than 25+ years, Neptune has provided great value and proven quality. Our extensive line of universal fit pipette tips and barrier tips address the liquid handling needs of some of the busiest academic, clinical and research laboratories around the world. To ensure that Neptune pipette tips perform as well in your hands as they do in ours, we've outlined some best practices for using tips in the lab.

Compatibility

The single greatest contributing factor to liquid handling performance is fit. Pipette tips work with pipettors as a unified "system", and the better the fit, the greater the overall accuracy and precision. Verify the compatibility of Neptune tips with your pipettor by referring to the Neptune Product Catalog or online at www.neptunescientific.com. If you do not find your specific pipettor in the compatibility chart, request a sample for confirmation of fit.

Mounting tips onto a pipettor should be done with firm downward pressure. You should not have to repeatedly pound the pipettor onto the tips. This can not only cause damage to your pipettor, but also increase your risk for repetitive stress disorder (RSD).

A good seal will ensure complete draw and dispense of your sample. However, you should also verify that the pipettor you are using has been calibrated. Verify that your pipettor is both accurate and precise. For pipettors that are used daily, it is recommended to have them calibrated every three months.



Precise, but not Accurate



Accurate, but not Precise



Precise and Accurate

Product Handling

When stored properly, Neptune pipette tips have a long shelf life and maintain high quality performance. Store tips at room temperature and practice a first in, first out (FIFO) program for managing inventory. When not in use, keep the lids closed on tip racks to prevent contamination from airborne particulates. Avoid touching pipette tips with your fingers, even when gloved.

Depending on the sample solution that you are working with, there are options to consider in tips and pipetting technique. For example, Neptune tips with S3 technology are ideal for viscous and/or precious samples where delivery of every drop counts. In the next section are general guidelines for pipetting with air displacement pipettes. Note that most all pipettor manufacturers will recommend pre-rinsing of the pipette tip to improve accuracy, but this is seldom done in practice and is only noticed as an improvement in positive displacement pipettes.

Forward Pipetting Techniques

- Press the operating button to the first stop
- Dip the tip into the solution and then slowly release the operating button
- Dispense the solution by pressing the operating button down to the first stop. Then continue pressing down to the second stop, known as the "blow-out". Avoid tilting the pipettor sideways in your hand
- Release the operating button and eject tip

Reverse Pipetting Techniques

The reverse technique is used for pipetting solutions that are highly viscous (i.e., whole blood or serum) or have a tendency to foam. An alternative is to use Neptune pipette tips with S3 technology.

- Press the operating button all the way down to the second stop
- Dip the tip into the solution and slowly release the operating button. This will fill the tip with a volume that is larger than the set volume
- Wait 1-2 seconds and withdraw the tip from the solution
- Dispense the solution by pressing the operation button gently and steadily to the first stop. This volume is equal to the set volume. Hold the button in this position. Some liquid will remain in the tip and should not be dispensed
- Release the operating button to the ready position and eject tip

Avoiding Contamination

Never directly touch or handle pipette tips, even when wearing gloves—tips should only make contact with a pipettor and solution. Change tips after pipetting of each sample and keep the pipettor vertical to prevent sample from running into the pipette shaft. Release the dispensing buttons slowly to prevent aerosol generation. Always use barrier filter tips when working with PCR, bacteria, viruses, or other sensitive substrates that can easily cross-contaminate via aerosols.

If autoclaving is required by your lab protocol, or if you are using bulk tips that are hand-racked in your lab, please adhere to the following guidelines:

- Make sure that tips are loaded into the tip rack. Autoclaving tips when they are not racked risks warping the tips. A tip which is no longer straight can result in upwards of 10% error in accuracy
- Use a piece of autoclave indicator tape to secure the lid of the tip rack
- Set autoclave for 121°C, 15 PSI (1 atm) for 15 minutes
- Unlike glassware, do not use a "dry cycle" as this may distort and warp the tips
- Remove tips when autoclave has cooled and store as described in the Product Handling section above

Microcentrifuge Tubes

Microcentrifuge tubes (MCTs) are the workhorse of today's lab. Neptune's complete line of 0.6, 1.6, and 2.0 mL tubes were designed to meet the challenges of a wide array of lab procedures—from assays, to centrifugation, to sample storage.

Chemical Resistance

Neptune microcentrifuge tubes are made from medical grade polypropylene resin. This enables us to provide tubes without contaminating extractables, while maintaining high chemical resistance to a broad range of reagents and solvents. Before initiating use of these products for a new assay, please refer to the chemical resistance chart in the Neptune Product Catalog, or by going to www.neptunescientific.com.

Use in Centrifugation

MCTs from Neptune can withstand centrifugation up to 20,000 RCF. Before you use tubes for centrifugation, it is important to understand the difference between Revolutions Per Minute (RPM) and Relative Centrifugal Force (RCF). Of the two specifications, RCF, or G force, is a standard unit of measurement across all centrifuges and can be calculated using the formula provided here. Setting the RCF too high can cause a centrifuge tube to crack and shatter. Make sure that you are using the appropriate RCF speed, and not RPM.

Calculating RCF

$$RCF = 0.0001118 \times \text{radius of centrifuge rotor (cm)} \times \text{RPM}^2$$



BEST LABORATORY PRACTICES CONTINUED

Sample Storage in Freezer

Neptune MCT's can withstand freezing down to -80°C and are often used for shorter term storage of samples. Water density expands by approximately 81/3% upon freezing, so be sure to have allowance for expansion when placing your samples in the tubes.

Avoiding Contamination

Always wear personal protective equipment (PPE) when handling laboratory consumables. When removing MCTs from the product bag, never reach into the bag with your hands. Instead, pour the tubes out from the bag. This avoids contamination and the ziplock seal of the bag preserves the remaining tubes for future use.

If autoclaving is required by your lab protocol, please adhere to the following guidelines:

- Pour MCTs into a sterile beaker
- Cover the beaker with aluminum foil and use a piece of autoclave indicator tape to secure the foil to the beaker
- Set autoclave for 121°C, 15 PSI (1 atm) for 15 minutes
- Unlike glassware, do not use a "dry cycle" as this may distort the plastic of the tubes
- Keep tube sealed in beaker until use

PCR Tubes

Neptune offers a collection of high quality 0.2 to 0.6 mL thin walled tubes specifically manufactured for PCR applications. The rigorous quality standards of this product line ensure peak performance in even the most sensitive of PCR assays.

Compatibility

The uniform thin-wall dimensions of Neptune PCR tubes make them compatible with thermocycler blocks on the market that accept industry standard tubes. Good block-tube contact is important for efficient thermocycling reactions, so it is always recommended to verify fit and contact of the tubes with your particular system. Also, be sure to check the heated lid of your system. Many thermocyclers come with heated lids with adjustable heights, so make sure that yours is set to optimize the seal and avoid the effects of condensation within the tube cap. Over adjustment may crush the tube.

Product Handling

Neptune PCR tubes are made of virgin polypropylene and have a long shelf life when properly stored. Maintaining room temperature storage, away from prolonged sun exposure, will help prevent the tubes from becoming brittle and yellow over time. Maintain a First In, First Out (FIFO) process for tube inventory.

When assembling your PCR, do so in a separate area. Always use aerosol barrier pipette tips and be sure to use a new tip every time you touch your stock solution and reagents to avoid cross-contamination.

Avoiding Contamination

Always wear PPE when handling products to set up a PCR reaction. When removing PCR tubes from the product bag, never reach into the bag with your hands. Instead, pour the tubes out from the bag. This avoids contamination and the ziplock seal of the bag preserves the remaining tubes for future use. Autoclaving thin-walled

PCR tubes is not recommended as it may impact the integrity of the seal. If sterility is a concern, purchase pre-sterile Neptune PCR tubes. If autoclaving is required by your lab protocol, please adhere to the following guidelines:

- Pour PCR tubes into a sterile beaker
- Cover the beaker with aluminum foil and use a piece of autoclave indicator tape to secure the foil to the beaker
- Set autoclave for 121°C, 15 PSI (1 atm) for 15 minutes
- Unlike glassware, do not use a "dry cycle" as this may distort the plastic of the tubes
- Keep tube sealed in beaker until use

PCR Plates

Neptune offers an expansive line of 96-well PCR plates. Whether using the full profile, low profile, fully skirted, or semi-skirted plates, the rigorous quality standards of this product line ensure peak performance in even the most sensitive of PCR assays.

Compatibility

PCR plates from Neptune are molded from medical grade, high performance polypropylene and feature uniform thin-walls for superior heat transfer. The many options of plate styles (full profile, low profile, fully skirted and semi-skirted) means broader compatibility with the leading thermocyclers on the market. Good block-well contact is important for efficient thermocycling reactions, so be sure to refer to the PCR plate compatibility chart in the Neptune Product Catalog or on www.neptunescientific.com when considering your plate. Also, be sure to check the heated lid of your system. Many thermocyclers come with heated lids with adjustable heights, so make sure that yours is set to optimize the seal and avoid the effects of condensation within the plate.

Product Handling

Neptune PCR plates are made of virgin polypropylene and have a long shelf life when properly stored. Maintaining room temperature storage, away from prolonged sun exposure, will help prevent the tubes from becoming brittle and yellow over time. Maintain a First In, First Out (FIFO) process for plate inventory.

When assembling your PCR, do so in a separate "Pre-PCR" area and always wear PPE when handling products. Always use aerosol barrier pipette tips and be sure to use a new tip every time you touch your stock solution and reagents to avoid cross-contamination. Use the appropriate plate sealing tape for your application to reduce evaporation during cycling.

Avoiding Contamination

Neptune PCR plates are manufactured and tested to ensure the highest level of purity. Because they are certified as RNase, DNase, DNA, and endotoxin-free, it is not necessary to autoclave the plates before use. In fact, there have been several published reports where autoclaves have introduced contamination to products, particularly in busy lab shops that share the same autoclave. Additionally, autoclaving PCR plates may result in product warpage, which may impact fit and compatibility in your thermocycler. After cycling, always perform a quick spin of the plate to pull down condensation and prevent cross contamination when removing the sealing tape.



CHEMICAL AND PHYSICAL PROPERTIES OF PLASTICS

The information in this chart has been supplied to Biotix by various reputable raw material manufacturers, and is to be used only as a guide in selecting products for appropriate chemical compatibility. These values are based on laboratory tests with raw materials. Plastic components produced from these raw materials are frequently subject to influences that cannot be recognized in standard tests (temperature, pressure, material stress, etc.). In critical cases, it is essential that a test is carried out first to your unique protocol. Biotix does not warrant (neither express nor implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose. No legal claims can be derived from this information, nor do we accept any liability for it.

General Physical Properties

Classes of substances; 20°C	HDPE	LDPE	PC	PP
Acids, weak or dilute	E	E	E	E
Acids, strong or concentrated	E	E	G	E
Alcohols, aliphatic	E	E	G	E
Aldehydes	G	G	F	G
Bases	E	E	N	E
Esters	G	G	N	G
Hydrocarbons, aliphatic	F	G	F	G
Hydrocarbons, aromatic	F	G	N	F
Hydrocarbons, halogenated	N	F	N	F
Keytones	G	G	N	G
Oxidizing agents, strong	F	F	N	F

Plastics Acronym Chart Explanation of Footnotes

LowDensityPolyethylene	LDPE	1 - Satisfactory to 72°F (22°C)
HighDensityPolyethylene	HDPE	2 - Satisfactory to 120°F (48°C)
Polycarbonate	PC	3 - Satisfactory to 90°F (32°C)
Polypropylene	PP	4 - Satisfactory to 120°F (93°C)

A = No effect
 B = Minor Effect
 C = Moderate Effect
 D = Severe Effect; Not Recommended
 E = No damage after 30 days of constant exposure
 G = Little or no damage after 30 days of constant exposure
 F = Some effect after seven days of constant exposure; may see cracking, crazing, loss of strength
 N = Not recommended for continuous use
 - = Not Available

Chemical Resistance Chart

Reagent	HDPE	LDPE	PC	PP
Acetaldehyde	C	C	C1	A1
Acetamide	A	A	D	A1
Acetate Solvent	A	A	-	B1
Acetic Acid	A	A2	B1	B1
Acetic Acid 20%	A	A	A1	A1
Acetic Acid 80%	A	D	B1	A
Acetic Acid, Glacial D	D	B1	A1	D
Acetic Anhydride	C	D	D	B1
Acetone, 50% water	-	-	-	A
Acetone	D	B1	D	A
Acetonitrile	A	A	D	A1
Acetophenone	C	D	D	C
Acetyl Chloride (dry)	-	D	D	D
Acetylene	-	D	D	A1
Acrylonitrile	A	A	D	A1
Adipic Acid	A	A	-	B2
Alanine	A	A	A	A
Alcohols				
- Amyl	A	B2	B1	B1
- Benzyl	B	D	-	A
- Butyl	-	A	A2	A
- Diacetone	A	B1	-	B2
- Ethyl	A	B	B2	A
- Isobutyl	A	A2	-	A1
- Isopropyl	a	A2	A2	A2

Reagent	HDPE	LDPE	PC	PP
- Methyl	A	A1	B1	A2
- Propyl	-	A2	-	A
Allyl Chloride	A	-	-	A
Aluminum Acetate (saturated)	-	-	-	A
Aluminum Chloride	A	B2	A1	A
Aluminum Chloride 20%	A	B2	A1	A
Aluminum Fluoride	A	A2	-	A
Aluminum Hydroxide	A	A2	B1	A
Aluminum Nitrate	-	A2	A1	A2
AluminumPotassiumSulfate10%	A	A2	A1	A
Aluminum Potassium Sulfate 100%	A	A2	A2	A
Aluminum Sulfate	A	A2	A	A
Alums	-	A	-	A
Amines	B	C1	-	B2
Ammonia 10%	A	C1	D	A2
Ammonia Nitrate	-	A	-	A
Ammonia anhydrous	A	B2	D	A
Ammonia liquid	A	C1	D	A2
Ammonia Acetate	A	A	-	A
Ammonia Bifluoride	-	A2	-	A
Ammonium Carbonate	B	B2	-	A
Ammonium Chloride	A	A2	A2	A
Ammonium Flouride 25%	A	-	-	A2
Ammonium Hydroxide	A	A1	D	A
Ammonium Glycolate	A	A	B	A

CHEMICAL AND PHYSICAL PROPERTIES OF PLASTICS CONTINUED

Reagent	HDPE	LDPE	PC	PP
Ammonium Nitrate	A	A1	-	A
Ammonium Oxalate	a	-	A1	A
Ammonium Persulfate	A	A2	-	A
Ammonium Phosphate, Dibasic	-	A2	A2	A
Ammonium Phosphate, Monobasic	-	A	-	A
Ammonium Phosphate, Tribasic	-	C	-	A
Ammonium Sulfate	A	A1	A2	A
Ammonium Sulfite	B	B2	-	A
Amyl Acetate	-	C1	D	B1
Amyl Alcohol	A	B2	B1	B1
Amyl Chloride	B	D	-	D
Aniline	B	C	D	A1
Aniline Hydrochloride	-	D	D	D
Antifreeze	-	-	-	D
Antimony Trichloride	B	B2	A2	A
Aqua Regia (80% HCL, 20% HNO ₃)	D	B1	D	B1
Arochlor 1248	-	C1	-	D
Aromatic Hydrocarbons	-	C	-	D
Arsenic Acid	B	B2	A1	A
Arsenic Salts	-	B	-	-
Barium Carbonate	-	B2	A2	A
Barium Chloride	B	A1	A	A
Barium Cyanide	-	B	-	D
Barium Hydroxide	-	B2	D	B
Barium Nitrate	-	B2	D	A
Barium Sulfate	B	B2	D	B1
Barium Sulfide	A	B2	-	B
Benzaldehyde	B	A1	D	D
Benzenamine	B	A	D	A
Benzene	D	D	D	D
Benzene Sulfonic Acid	A	A1	D	D
Benzoic Acid	A	A1	B1	B1
Benzol	-	C1	D	B
Benzyl Chloride	-	-	-	C1
Bleach	-	-	-	D
Bleaching liquors	-	A1	-	A1
Borax (Sodium Borate)	A	A2	-	B
Boric Acid	A	A2	-	A
Bromine	D	D	C1	D
Bromofone	D	D	D	D
Butadiene	D	D	D	C
Butane	-	C1	D	A1
Butanol (Butyl Alcohol)	-	B2	B1	A1
Butyl Amine	-	C1	D	B1
Butyl Ether	-	-	-	D
Butyl Phthalate	A	C1	D	B2

Reagent	HDPE	LDPE	PC	PP
Butyl Acetate	B	C1	D	B1
Butyric Acid	D	D	D	B1
Calcium Bisulfide	-	B1	-	A
Calcium Bisulfite	A	A1	D	A
Calcium Carbonate	-	B	C2	A
Calcium Chloride (30% in water)	A	B2	-	A2
Calcium Chloride (saturated)	A	-	-	A
Calcium Hydroxide 10%	A	-	-	A
Calcium Hydroxide (saturated)	A	-	-	A
Calcium Hydroxide	A	A2	D	A2
Calcium Hypochlorite 30%	A	-	-	A
Calcium Hypochlorite (saturated)	A	-	-	A
Calcium Nitrate	B	A1	A2	A2
Calcium Oxide	-	B1	-	A
Calcium Sulfate	-	B1	A2	A
Calcium Sulfide	-	-	-	A
Carbolic Acid (Phenol)	-	D	D	B
Carbon Bisulfide	-	-	-	D
Carbon Dioxide (dry)	-	A1	-	A2
Carbon Dioxide (wet)	-	A1	-	A2
Carbon Disulfide	D	D	D	D
Carbon Monoxide	-	A2	-	A
Carbon Tetrachloride	C	D	D	D
Carbon Tetrachloride (dry)	C	D	-	D
Carbon Tetrachloride (wet)	C	-	-	D
Carbonic Acid	B	B2	A1	A
Cellulose Acetate	-	-	-	A
Chloral Hydrate	D	-	-	D
Chlorine Water	C	B1	-	D
Chlorine Anhydrous Liquid	C	D	C	D
Chlorine (dry)	B	D	-	D
Chloroacetic Acid	A	D	D	C1
Chlorobenzene (Mono)	D	C1	D	C1
Chlorobromomethane	-	A	-	A
Chloroform	D	C1	D	C1
Chlorosulfonic Acid	D	D	C1	D
Chromic Acid 5%	A	A	B	D
Chromic Acid 10%	A	A	B	D
Chromic Acid 30%	A	A	C	D
Chromic Acid 50%	A	A	D	D
Citric Acid	A	D	A1	A
Citric Oils	B	-	-	A
Copper Chloride	-	-	-	A
Copper Cyanide	-	B2	D	A
Copper Nitrate	-	B2	D	A
Copper Sulfate 5%	A	A2	A1	A

Reagent	HDPE	LDPE	PC	PP
Copper Sulfate >55	A	A2	A1	A
Cresols	D	C1	D	D
Cresylic Acid	-	B1	D	A1
Cupric Acid	-	B1	A1	A2
Cyclohexane	D	B1	B	D
Cyclohexanon	B	D	D	D
Detergents	A	D	A1	A
Dextrin	A	-	-	A
Dextrose	A	-	-	A
Diacetone Alcohol	A	A	D	A1
Dichlorobenzane	-	-	D	C1
Dichloroethane	C	C1	D	D
Diesel Fuel	D	C1	A2	A1
Diethyl Ether	D	-	D	A1
Diethylamine	D	D	D	A1
Diethylene Glyol	A	B2	B1	A2
Dimethyl Aniline	B	-	D	D
Dimethyl Formamide	A	A	D	A
Diphenyl	-	-	-	D
Diphenyl Oxide	-	-	-	D
Disodium Phosphate	A	-	-	A
Epson Salts (Magnesium Sulfate)	-	A2	A1	A
Ethane	-	-	-	D
Ethanol	A	B	B2	A
Ethanolamine	-	-	-	D
Ether	D	D	-	D
Ethyl Acetate	A	A	D	A1
Ethyl Benzoate	B	C2	D	B1
Ethyl Chloride	C	C1	D	D
Ethyl Ether	D	D	-	D
Ethylene Bromide	-	D	D	D
Ethylene Chloride	C	D	D	C1
Ethylene Chlorohydrin	-	D	D	D
Ethylene Dichloride	D	D	D	D
Ethylene Glycol	A	A2	B1	A
Ethylene Oxide	B	A	C1	D
Fatty Acids	A	D	B1	A
Ferric Chloride	D	A1	A2	A
Ferric Nitrate	-	A2	A1	A
Ferric Sulfate	-	A2	A1	A
Ferrous Chloride	A	A2	D	A
Ferrous Sulfate	-	A2	A1	A
Fluboric Acid	A	A2	-	A
Flourine	D	D	C	D
Fluosilicic Acid	B	A2	A1	A
Formaldehyde 40%	A	D	A1	A
Formaldehyde 100%	A	B	A2	C

Reagent	HDPE	LDPE	PC	PP
Formic Acid	A	D	A1	A1
Freon 11	A	C	-	A
Freon 12	-	A1	-	A2
Freon 22	-	-	-	B
Freon 113	-	-	B1	D
Freon TF	B	-	-	D
Fuel Oils	C	B	B1	A
Furan Resin	-	D	-	D
Furfural	A	D	D	D
Gallic Acid	A	A	-	A
Gasoline (high-aromatic)	B	A	A	A
Gasoline , leaded, ref.	B	-	A2	B
Gasoline, unleaded	B	-	A2	C1
Gelatin	A	A2	-	A
Glucose	A	A2	A1	A
Glycerin	A	A1	A2	A
Glycolic Acid	-	A2	-	A
Heptane	B	B1	B	C2
Hexane	C	D	D	B1
Hydraulic Oil (Petro)	A	C	-	D
Hydraulic Oil (Synthetic)	A	A	-	D
Hydrazine	D	-	D	C
Hydrobromic Acid 20%	D	B2	-	A2
Hydrobromic Acid 100%	D	B1	-	C1
Hydrochloric Acid 20%	A	A2	B1	B2
Hydrochloric Acid 37%	A	B2	D	C
Hydrochloric Acid 100%	D	-	D	B1
Hydrochloric Acid, Dry Gas	D	A2	-	B
Hydrocyanic Acid	A	A2	-	A
Hydrocyanic Acid (Gas 10%)	A	-	B1	A
Hydrofluoric Acid 20%	A	A2	D	A2
Hydrofluoric Acid 50%	A	A1	D	A2
Hydrofluoric Acid 75%	B	C1	D	C1
Hydrofluoric Acid 100%	D	-	D	C1
Hydrofluosilicic Acid 20%	B	B2	-	A
Hydrofluosilicic Acid 100%	C	B1	-	A
Hydrogen Gas	A	A2	A2	A
Hydrogen Peroxide 10%	A	A	A2	A
Hydrogen Peroxide 30%	A	C2	A2	B1
Hydrogen Peroxide 50%	A	C2	A2	B1
Hydrogen Peroxide 100%	A	C2	A	B1
Hydrogen Sulfide (aqua)	A	A	A	A1
Hydrogen Sulfide (dry)	A	A	-	A1
Hydroquinone	-	A	-	A
Iodine	B	A1	-	C
Isooctane	B	B	B1	A2
Isopropyl Acetate	B	B1	D	B1

CHEMICAL AND PHYSICAL PROPERTIES OF PLASTICS CONTINUED

Reagent	HDPE	LDPE	PC	PP
Isopropyl Ether	D	B	D	B
Isotane	-	-	-	D
Kerosene	B	C1	D	B
Ketones	D	C1	D	C
Laquer Thinners	D	A	B	D
Laquers	D	A	D	D
Lactic Acid	A	A1	B	B
Latex	-	-	-	A2
Lead Acetate	A	A2	-	A1
Lead Nitrate	A	A2	-	A2
Lead Sulfamate	-	A1	A1	A2
Linoleic Acid	-	A	-	B1
Lithium Chloride	D	A2	B1	A2
Lye:KOH Potassium Hydroxide	B	A	D	A
Lye: NaOH Sodium Hydroxide	B	D	D	A
Lye:Ca(OH) ₂ Calcium Hydroxide	B	A2	D	A2
Magnesium Bisulfate	-	-	A1	A2
Magnesium Carbonate	-	B	A1	A
Magnesium Chloride	A	A1	A2	A2
Magnesium Hydroxide	B	A2	A1	A
Magnesium Nitrate	B	A2	A1	A
Magnesium Sulfate (Epson Salts)	A	A2	A1	A
Maleic Acid	A	B2	-	A
Maleic Anhydride	A	D	-	D
Malic Acid	-	B2	-	A1
Melamine	-	-	-	A
Mercuric Chloride (dilute)	A	A	A	B
Mercuric Cyanide	-	A	-	B
Mercurous Nitrate	-	A	A2	A
Mercury	A	A	D	B
Methane	-	-	-	A
Methanol (Methyl Alcohol)	A	A1	B1	A2
Methyl Acetate	C	B1	D	D
Methyl Acrylate	-	-	-	D
Methyl Alcohol 10%	A	A1	B1	A2
Methyl Bromide	-	C1	-	C
Methyl Butyl Ketone	-	-	D	D
Methyl Cellusolve	-	-	D	B
Methyl Chloride	-	C1	D	D
Methyl Dichloride	-	-	-	D
Methyl Ethyl Ketone	D	D	D	B2
Methyl Isobutyl Ketone	D	C	D	A
Methyl Methacrylate	-	-	-	D
Methylamine	-	A1	-	A2
Methylene Chloride	D	D	D	B1
Mineral Spirits	D	B	C	B

Reagent	HDPE	LDPE	PC	PP
Monoethanolamine	-	C	-	B
Morpholine	-	-	D	B2
Naphtha	-	A1	B	B
Naphthalene	B	C	-	B
Natural Gas	-	A	-	A
Nickel Chloride	B	A	A2	A
Nickel Nitrate	B	A	D	A2
Nickel Sulfate	B	A	A	A
Nitrating Acid (<1%)	-	-	-	C
Nitrating Acid (<15% H ₂ SO ₄)	-	-	-	C
Nitrating Acid (>15% H ₂ SO ₄)	-	-	-	C
Nitrating Acid (<15% HNO ₃)	-	-	-	C
Nitric Acid (5-10%)	A	B	A	A
Nitric Acid (20%)	B	C	B1	A2
Nitric Acid (50%)	D	B1	B	B
Nitric Acid (Concentrated)	D	C1	C1	D
Nitrobenzene	D	C1	D	B1
Nitromethane	D	A	D	B2
Nitrous Acid	-	-	-	A
Nitrous Oxide	-	C	-	D
Oleic Acid	C	C2	-	B1
Oleum 25%	-	D	-	D
Oleum 100%	-	D	-	D
Oxalic Acid (cold)	A	A2	-	A2
Ozone	A	C1	A1	B
Palmitic Acid	-	-	-	B1
Parafin	B	B	A1	A1
Pentane	-	D	A	D
Perchloric Acid	D	B	-	C
Perchloroethylene Acid	D	D	D	D
Petrolatum	-	B	-	D
Petroleum	D	C1	-	B1
Phenol (10%)	D	B	B1	B1
Phenol (Carbolic Acid)	D	D	D	B
Phosphoric Acid (<40%)	A	A	A	A2
Phosphoric Acid (>40%)	A	B1	A	A2
Phosphoric Acid (crude)	B	B1	A	B2
Phosphoric Acid (molten)	D	-	-	D
Phosphoric Acid Anhydride	A	-	D	A
Phosphorus	-	B	-	A
Photographic Developer	-	A	A2	A
Photographic Solutions	A	A	A1	A2
Phthalic Acid	B	B2	-	A
Phthalic Anhydride	-	-	A1	D
Picric Acid	D	A	D	B1
Potash (Potassium Carbonate)	B	A1	-	A

Reagent	HDPE	LDPE	PC	PP
Potassium Bicarbonate	B	A	-	A
Potassium Bromide	B	A	A1	A
Potassium Chlorate	B	A1	A1	A
Potassium Chloride	A	A1	A	A
Potassium Chromate	-	A	-	A
Potassium Cyanide Solutions	-	A	-	A
Potassium Dichromate	B	A	A1	A
Potassium Ferricyanide	-	A2	-	A2
Potassium Ferrocyanide	-	A1	-	A
Potassium Hydroxide (Caustic Potato)	A	A	D	A
Potassium Iodite	B	B1	-	A2
Potassium Nitrate	B	A	A1	A
Potassium Permanganate	A	A	A2	A1
Potassium Sulfate	B	A2	A1	A
Potassium Sulfide	-	A2	-	A
Propane (liquefied)	D	C1	C1	A
Propylene Glycol	A	B2	B1	A2
Pyridine	D	B1	D	A2
Pyrogalllic Acid	-	-	-	A
Salicylic Acid	-	B2	A1	A1
Silicone	-	-	A2	A
Silver Nitrate	A	A	A2	A1
Soap Solutions	B	D	A1	A
Soda Ash (see Sodium Carbonate)	A	B	A	A
Sodium Acetate	A	A	A1	A
Sodium Aluminate	-	-	-	-
Sodium Benzoate	B	A2	A2	A2
Sodium Bicarbonate	A	A2	A2	A
Sodium Bisulfate	B	A2	A1	A
Sodium Borate (Borax)	B	A2	A1	A2
Sodium Carbonate	A	B2	A2	A
Sodium Chlorate	-	B2	A1	A
Sodium Chloride	A	A2	A2	A
Sodium Cyanide	B	A2	-	A
Sodium Ferrocyanide	-	A	-	A
Sodium Fluoride	-	A2	-	A
Sodium Hydroxide (20%)	C	B	A2	A
Sodium Hydroxide (50%)	C	B	D	A
Sodium Hydroxide (80%)	C	-	D	A
Sodium Hypochlorite (100%)	C	B2	-	B
Sodium Hypochlorite (<20%)	A	A	C	A
Sodium Metaphosphate	B	A1	-	A1
Sodium Metasilicate	-	-	-	A
Sodium Nitrate	B	A2	-	A
Sodium Perborate	-	A1	-	A
Sodium Peroxyde	B	A	A2	B

Reagent	HDPE	LDPE	PC	PP
Sodium Polyphosphate	B	A	-	A
Sodium Silicate	A	A2	-	A
Sodium Sulfate	-	A2	A2	A
Sodium Sulfide	B	A2	D	A
Sodium Sulfite	B	B1	-	A2
Sodium Thiosulfate	-	A1	D	A2
Stannic Chloride	-	A2	A1	A
Stannous Chloride	-	B2	-	A
Stearic Acid	A	B1	A1	A2
Stoddard Solvent	-	C2	A2	C
Sulfate (Liquors)	A	A2	-	A
Sulfur Chloride	-	C1	-	C1
Sulfur Dioxide	D	B1	-	A1
Sulfur Dioxide (dry)	A	A1	A1	A1
Sulfur Hexafluoride	-	B	-	-
Sulfur Trioxide	-	-	-	C
Sulfur Trioxide (dry)	-	C1	-	D
Sulfuric Acid (<10%)	A	A1	A1	A2
Sulfuric Acid (10 - 75%)	A	A1	B1	A1
Sulfuric Acid (75 - 100%)	B	C	D	C1
Sulfuric Acid (cold concentrated)	B	D	-	A2
Sulfuric Acid (hot concentrated)	B	D	D	D
Sulfurous Acid	B	B2	-	A
Tannic Acid	A	B2	C	A
Tartaric Acid	A	A1	-	A
Tetrachloroethane	-	-	-	C
Tetrachloroethylene	C	B	D	D
Tetrahydrofuran	C	C1	D	C2
Tin Salts	-	-	-	A
Toluene	D	C1	D	C1
Trichloroacetic Acid	C	A	D	A
Trichlorethane	D	-	D	C
Trichloroethylene	D	D	-	C1
Tricresylphosphate	-	B1	-	A1
Triethylamine	-	-	-	D
Trisodium Phosphate	A	A	-	A
Turpentine	B	D	D	D
Urea	A	A	D	A
Urine	A	A2	-	A
Vinegar	A	A	A2	A
Vinyl Acetate	D	A	-	B1
Water, Deionized	A	-	-	A2
Water, Distilled	A	A2	A2	A
Water, Salt	A	A2	A2	A
Xylene	D	B	D	B
Zinc Chloride	A	A1	A2	A
Zinc Sulfate	A	A2	A2	A

INDEX

Neptune PN	Page	Neptune PN	Page	Neptune PN	Page	Neptune PN	Page	Neptune PN	Page
BT10	10	2047.T	20	2142.S	15	2377.S	17	3427.8AS.X	26
BT10E	10	2090	16	2152.96.N	16	2377.T	20	3427.8S.X	26
BT10F	10	2090.N	16	2152.96.NS	16	2405.X	33	3428.8.X	25
BT10.N	10	2092	16	2160	17	2405.S.X	33	3428.8A.X	25
BT10XL	10	2092.N	16	2162.96	17	2600.X	27	3438.X	30
BT10XLS3	10	2092.NS	16	2162.96.S	17	2600.8.X	27	3459.8.X	26
BT100	11	2092.S	16	2162.T	20	2601.8.X	27	3470.X	24
BT1000.96	11	2092.T	20	2167.96	17	2601.8S.X	27	3471.X	24
BT1000.96.N	11	2097	16	2167.96.S	17	2601.X	27	3472.X	24
BT1250	11	2097.N	16	2340	14	2601.S.X	27	3728.8AS.X	25
BT1250.N	11	2097.NS	16	2340S3	14	2602.8.X	27	3728.8S.X	25
BT20	10	2097.S	16	2342	14	2602.8S.X	27	3730.X	30
BT20-ESP	10	2097.T	20	2342.S	14	3102.X	24	3731.X	30
BT200	11	2100	15	2342S3	14	3103.X	24	3732.X	30
BT200-ESP	11	2100.N	15	2342S3.S	14	3104.X	24	3735.X	23
BT200XLT	11	2100.Y	15	2342.T	20	3120.A.X	24	3735.A.X	23
BT300	11	2100.YN	15	2347	14	3121.A.X	24	3735.AS.X	23
BTXLT	11	2101	15	2347.N	14	3423.X	25	3735.S.X	23
2016	16	2101.N	15	2347.NS	14	3423.A.X	25	3742.X	30
2016.S	16	2102	15	2347.S	14	3423.AS.X	25	3745.X	23
2040	14	2102.N	15	2347.T	20	3423.S.X	25	3745.A.X	23
2040.N	14	2102.NS	15	2370	17	3425.X	25	3745.AS.X	23
2042	14	2102.S	15	2370.N	17	3425.A.X	25	3745.S.X	23
2042.N	14	2102.T	20	2372	17	3425.AS.X	25	3765.X	23
2042.NS	14	2107	15	2372.N	17	3425.S.X	25	3765.A.X	23
2042.S	14	2107.N	15	2372.NS	17	3426.8.X	26	3765.S.X	23
2042.T	20	2107.S	15	2372.S	17	3426.8A.X	26	4445.X	23
2047	14	2107.T	20	2372.T	20	3426.8AS.X	26	4445.A.X	23
2047.N	14	2110.B	16	2377	17	3426.8S.X	26	4445.AS.X	23
2047.NS	14	2140	15	2377.N	17	3427.8.X	26	4445.S.X	23
2047.S	14	2142	15	2377.NS	17	3427.8A.X	26		

B

Best Laboratory Practices 3

C

Chemical and Physical Properties of Plastics 37-41

Cryotubes 24

Cryovials 24

E

ESP™ Reload System 8-9

F

Filter Tip Compatibility Chart 12-13

M

Megatiter Plate, 96-Well 3

Microcentrifuge Tubes, 0.6 mL 23

Microcentrifuge Tubes, 1.6 mL 23

Microcentrifuge Tubes, 2.0 mL 23

Minitube System 27

P

PCR Plate Thermocycler Compatibility 31-32

PCR Plates, 96-Well, Non-Skirted Full Profile 30

PCR Plates, 96-Well, Non-Skirted Low Profile 30

PCR Plates, 96-Well, Semi-Skirted 30

PCR Plates, 96-Well, Skirted 30

PCR Tubes, 8-Strip, 0.2 mL 25-26

PCR Tubes, Thin Wall, 0.2 mL 25-26

Pipette Tips, 10 µL 10, 14

Pipette Tips, 200-300 µL 10

Pipette Tips, 1000 µL 11, 16-17, 20

Pipette Tips, 1000XL 11, 17, 20

Pipette Tips, 5000 µL 17

Pipette Tips, Barrier Tips 10

Pipette Tips, Blue 16

Pipette Tip Compatibility Chart 18-19

Pipette Tips, ESP Reload 10

Pipette Tips, Extended Length 10-11, 14, 16, 17

Pipette Tips, Filtered 10-11

Pipette Tips, Gel Loading 6

Pipette Tips, Rack and Stack 15

Pipette Tips, Yellow 15

S

S³ Sample Saving Surface 7

Spare Trays 20

T

Tray Compatibility Chart 0



