

Deepwell Plates and Microplates

Instructions for use

Copyright ©2014 Eppendorf AG, Germany. All rights reserved, including graphics and images. No part of this publication may be reproduced without the prior permission of the copyright owner.

Eppendorf® and the Eppendorf logo are registered trademarks of Eppendorf AG, Germany.

Eppendorf Plate® is a registered trademark of Eppendorf AG, Germany.

Registered trademarks and protected trademarks are not marked in all cases with ® or ™ in this manual.

U.S. Patent No. 8,636,965

1 Operating instructions

1.1 Using this manual

Before using the consumables for the first time, read these instructions for use and the operating manual of the device that you use the consumables with.

2 Safety

2.1 Intended use

Eppendorf Deepwell Plates and Microplates are uncoated single-use items made from polypropylene for analyzing, preparing, mixing, centrifuging, transporting and storing solid and liquid samples and reagents.

Eppendorf Deepwell Plates and Microplates can be used for training, routine and research laboratories in the areas of life sciences, industry or chemistry. This product is intended to be used for research purposes only. Eppendorf does not provide a warranty for other applications. Not suitable for use in diagnostic or therapeutic applications. Eppendorf Deepwell Plates and Microplates may only be used by skilled personnel who have been trained in the areas mentioned above.

Eppendorf Microplates can be used in all conventional plate readers.

2.2 Warnings for intended use

- ▶ Please read this manual thoroughly before using the Eppendorf Deepwell Plates and Microplates for the first time.
- ▶ Please view this manual as part of the product and keep it somewhere easily accessible.
- ▶ If this manual is lost, please request another one. The current version is available on our webpage www.eppendorf.com, also in other languages.



WARNING! Damage to health from toxic, radioactive or aggressive chemicals as well as infectious liquids and pathogenic germs.

- ▶ Observe the national regulations for handling these substances, the biological security level of your laboratory, the material safety data sheets and the manufacturer's application notes.
- ▶ Wear personal protective equipment.
- ▶ For comprehensive regulations about handling germs or biological material of risk group II or higher, please refer to the "Laboratory Biosafety Manual" (source: World Health Organization, Laboratory Biosafety Manual, in its respectively current valid version).

Safety

4 Deepwell Plates and Microplates English (EN)



WARNING! Contamination risk from splashing liquids or escaping substances.

- ▶ Observe the maximum filling volume.
- ▶ Take appropriate safety measures to prevent the escape of substances in the plates during storage and transportation.
- ▶ Always remove the covers carefully.
- ▶ Use only undamaged and visibly perfect plates from intact packages.
- ▶ Do not use liquid nitrogen in combination with the plates. They could be damaged or the covers could burst open during thawing.



WARNING! Contamination risk from damaged plates during centrifugation.

The plates withstand heavy loads during centrifugation. However, they can be destroyed and release the substances they contain if used improperly.

- ▶ Always observe the maximum permitted centrifugation forces.
- ▶ Read the operating manual of the centrifuge used.
- ▶ Centrifuge stacked plates at lower speed only.
- ▶ Note that organic solvents may reduce the mechanical load capability of the plates. If in doubt please contact the Eppendorf Application Support (support@eppendorf.com).



CAUTION! Contamination risk when disposing of used consumables.

- ▶ Dispose of used consumables in accordance with the substances with which they have come into contact.
- ▶ Observe the rules applicable to your laboratory.



NOTICE! Material change of consumables due to extreme temperatures.

Extreme temperatures (e.g., during refrigeration or autoclaving) affect consumables material. The mechanical strength, dimensions and shape of the consumable will change.

- ▶ Use consumables that are suitable for the selected temperature range or selected procedure.
-

3 Product description

Eppendorf Deepwell Plates and Microplates are uncoated single-use items made from polypropylene for analyzing, preparing, mixing, centrifuging, transporting and storing solid and liquid samples and reagents. Eppendorf Microplates can be used in all conventional plate readers.

Eppendorf Deepwell Plates and Microplates feature a high chemical and temperature resistance and can be sealed with appropriate closure options. The plates conform to the Microplate standards ANSI/SLAS 1-2004 through ANSI/SLAS 4-2004.

4 Technical data

Material	Polypropylene, colored, colorless
Resistance to chemicals	The plates including border show a high resistance to UV light and chemicals. Refer to. Application No. 56: <i>The best material for original Eppendorf Tubes® and Plates</i> at www.eppendorf.com . In case of doubt, contact Eppendorf Application Support.
Dimensions	Conforms to the Microplate standards ANSI/SLAS 1-2004 through ANSI/SLAS 4-2004 ¹ .
Autoclavability	Autoclavable (121 °C, 20 min). The stability of the single-use items can be compromised.
Operational temperature	-86 °C to +100 °C
Storage before use	Store dry at room temperature. Protect from sunlight and UV rays.

Current certificates can be downloaded at www.eppendorf.com.

¹ SLAS: Society for Laboratory Automation and Screening

4.1 Maximum values for centrifuging



NOTICE! Consumables heat up.

In uncooled centrifuges, the temperature in the rotor chamber, rotor and sample can increase to above 40 °C, based on the run time, g-force (rcf)/speed and ambient temperature.

- ▶ Please note that this will reduce the resistance to centrifugation of the micro test tubes and plates.
- ▶ Please note the temperature resistance of the samples.

Can be centrifuged at 4 °C – 40 °C

The plates can be centrifuged with the maximum *g*-forces (rcf) listed in the table below under the following conditions:



- in a swing-bucket rotor
- sample temperature of 40 °C with aqueous saline solution (1.0 g/mL density)
- 90 min

	Sterile	PCR clean Protein LoBind DNA LoBind
Eppendorf Deepwell Plates	5 000 × <i>g</i>	6 000 × <i>g</i>
Eppendorf Microplates	6 000 × <i>g</i>	6 000 × <i>g</i>

The mechanical strength of the plates is reduced by the use of organic solvents. If in doubt, contact Eppendorf Application Support.

The centrifugation stability of each plate type generally depends on each individual plate, the centrifuge, rotor, rotor bucket, adapter, maximum revolution/maximum field of gravity, operating temperature, centrifugation time, density of the centrifuged liquid, organic solvents, cumulative total weight and the correct operation.

4.2 Eppendorf purity grades

	Sterile	PCR clean
		

Batch testing (certified) for the following purity criteria

Free of human DNA		■
DNase-free		■
RNase-free		■
Free of PCR inhibitors		■
Pyrogen-free (endotoxin-free)	■	
Sterile (Ph.Eur./UPS)	■	

4.3 Eppendorf Deepwell Plate

Eppendorf Deepwell Plate		96/2000 µL	96/1000 µL	96/500 µL	384/200 µL
Theoretical total volume per well	[µL]	2400	1200	700	240
Working volume per well	[µL]	50 – 2000	30 – 1000	30 – 550	20 – 225

4.4 Eppendorf Microplate

Eppendorf Microplate		96/F-PP	96/U-PP	96/V-PP	384/F-PP	384/V-PP
Bottom shape of the wells		flat	round	V-shape	flat	V-shape
Theoretical total volume per well	[µL]	400	360	350	150	140
Working volume per well	[µL]	50 – 350	20 – 320	20 – 300	10 – 120	5 – 120

5 Ordering information

Eppendorf Deepwell Plates and Microplates are also available with the following options:

- Deepwell Plates: additional border colors (yellow, green or blue)
- Bulk packages
- With barcoding on request (www.eppendorf.com/barcode)

Ordering information for appropriate closure options you can find at www.eppendorf.com/consumables.

You can find further product information in our catalog, on our webpage www.eppendorf.com/consumables and at the Eppendorf Application Support.

5.1 Eppendorf Assay/Reader Microplates

Order no. (International)	Order no. (North America)	Description
0030 601.475	0030601475	Microplate 96/F-PP 80 plates, wells white, gray border color PCR clean
0030 601.700	0030601700	Microplate 96/F-PP 80 plates, wells black, white border color PCR clean
0030 601.572	951040145	Microplate 96/U-PP 80 plates, wells white, gray border color PCR clean
0030 601.807	951040102	Microplate 96/U-PP 80 plates, wells black, white border color PCR clean
0030 601.670	951040308	Microplate 96/V-PP 80 plates, wells white, gray border color PCR clean
0030 601.904	951040260	Microplate 96/V-PP 80 plates, wells black, white border color PCR clean
0030 621.670	951040503	Microplate 384/V-PP 80 plates, wells white, gray border color PCR clean
0030 621.905	951040481	Microplate 384/V-PP 80 plates, wells black, white border color PCR clean

5.2 Eppendorf Deepwell Plates

Order no. (International)	Order no. (North America)	Description
0030 501.306 0030 502.302	951033405 951033502	Eppendorf Deepwell Plate 96/2000 µL 20 plates, wells clear, white border color PCR Clean Sterile
0030 501.209 0030 502.205	951032603 951032701	Eppendorf Deepwell Plate 96/1000 µL 20 plates, wells clear, white border color PCR Clean Sterile
0030 501.101 0030 502.108	951031801 951031909	Eppendorf Deepwell Plate 96/500 µL 40 plates, wells clear, white border color PCR Clean Sterile
0030 521.102 0030 522.109	951031003 951031101	Eppendorf Deepwell Plate 384/200 µL 40 plates, wells clear, white border color PCR Clean Sterile

5.3 Eppendorf Microplates

Order no. (International)	Order no. (North America)	Description
0030 601.106 0030 602.102	951040005 951040021	Microplate 96/F-PP 80 plates, wells clear, white border color PCR clean Sterile
0030 601.203 0030 602.200	951040048 951040081	Microplate 96/U-PP 80 plates, wells clear, white border color PCR clean Sterile
0030 601.300 0030 602.307	951040188 951040227	Microplate 96/V-PP 80 plates, wells clear, white border color PCR clean Sterile
0030 621.107 0030 622.103	951040341 951040383	Microplate 384/F-PP 80 plates, wells clear, white border color PCR clean Sterile
0030 621.301 0030 622.308	951040421 951040464	Microplate 384/V-PP 80 plates, wells clear, white border color PCR clean Sterile

5.4 Protein LoBind Plates

Order no. (International)	Order no. (North America)	Description
0030 504.305	0030504305	Eppendorf Deepwell Plate 96/2000 μL 20 plates, wells clear, white border color Protein LoBind
0030 504.208	951032905	Eppendorf Deepwell Plate 96/1000 μL 20 plates, wells clear, white border color Protein LoBind
0030 504.100	951032107	Eppendorf Deepwell Plate 96/500 μL 40 plates, wells clear, white border color Protein LoBind
0030 524.101	951031305	Eppendorf Deepwell Plate 384/200 μL 40 plates, wells clear, white border color Protein LoBind
0030 624.300	951040589	Microplate 384/V-PP 80 plates, wells clear, white border color Protein LoBind

5.5 DNA LoBind Plates

Order no. (International)	Order no. (North America)	Description
0030 503.201	951032808	Eppendorf Deepwell Plate 96/1000 μL 20 plates, wells clear, white border color DNA LoBind (also for RNA and other nucleic acids)
0030 503.104	951032000	Eppendorf Deepwell Plate 96/500 μL 40 plates, wells clear, white border color DNA LoBind (also for RNA and other nucleic acids)
0030 523.105	951031208	Eppendorf Deepwell Plate 384/200 μL 40 plates, wells clear, white border color DNA LoBind (also for RNA and other nucleic acids)
0030 623.304	951040546	Microplate 384/V-PP 80 plates, wells clear, white border color DNA LoBind

Evaluate Your Manual

Give us your feedback.
www.eppendorf.com/manualfeedback

Your local distributor: www.eppendorf.com/contact
Eppendorf AG · 22331 Hamburg · Germany
eppendorf@eppendorf.com · www.eppendorf.com