

Instructions for use

Eppendorf twin.tec® PCR Plates

English (EN)

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.

1 Product description

The Eppendorf twin.tec PCR Plate is a single-use polycarbonate/polypropylene plate allowing trained specialists to perform PCR and cycle sequencing experiments. It is used in training, routine and research laboratories in the bioscientific, industrial and chemical fields. Evaporation is prevented with the aid of a variety of sealing systems.

The Eppendorf twin.tec *real-time* PCR Plates differ from Eppendorf twin.tec PCR Plates by their white wells. They are intended for real-time PCR.

The Eppendorf twin.tec *microbiology* PCR Plates have additional sterility features. Besides the quality criterion PCR clean, these plates are tested to be free of bacterial DNA, ATP and pyrogen. Gassing with ethylen oxide is used as sterilization method.

2 Safety



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 full instructions regarding the handling of germs or biological material of risk group II or higher, please refer to the "Laboratory Biosafety Manual" (Source: World Health Organization, current edition of the Laboratory Biosafety Manual).



WARNING! Risk to health from escaping substances.

- ▶ Only use optically perfect and undamaged twin.tec PCR Plates.
- ▶ Observe the maximum filling volume. Liquid may splash out when the selected sealing system is removed.
- ▶ Seal the twin.tec PCR Plates prior to centrifugation. Observe the instructions in the device operating manual.
- ▶ Store and transport the twin.tec PCR Plates in a way that prevents material from escaping from the twin.tec PCR Plates.
- ▶ Do not use the twin.tec PCR Plates as cryo tubes.

Instructions for use

Eppendorf twin.tec® PCR Plates
English (EN)

- ▶ Take appropriate measures to avoid contaminations after opening the bag containing PCR clean consumables.
- ▶ Reagents, consumables contaminated with reagents and materials used for cleaning and disinfecting should be disposed of in accordance with laboratory regulations.

3 Application

For PCR instructions please refer to reagent manufacturers' work specifications or lab protocols.

3.1 Filling

Maximum filling volume:

- twin.tec PCR Plate 96, semi-skirted and unskirted: 250 µL
 - twin.tec PCR Plate 96, skirted and unskirted, low profile: 150 µL
 - twin.tec PCR Plate 384: 45 µL
 - twin.tec *real-time* PCR Plate 384: 40 µL
- ▶ Fill the twin.tec PCR Plates directly or place them in an appropriate stand for filling.

3.2 Sealing

- ▶ You can use cap strips, adhesive PCR foils and films or heat sealing foils and films to seal the twin.tec PCR Plates.

We recommend heat sealing with Eppendorf Heat Sealing Foil or Eppendorf Heat Sealing Film as the ideal protection against evaporation.

Perfect sealing of the PCR Plates allows an oil-free PCR reaction in a minimum volume of up to 10 µL (96-well PCR Plates) or 5 µL (384-well PCR Plate).

3.3 Real-time PCR

An application for plates with white wells is to enhance the signal recovery and thus the detection limit in real-time PCR applications. This is the case with a dye which has a low concentration or low fluorescence intensity. Generally plates with white, signal amplifying wells can cause irradiation - depending on the device - if the concentration of the dye is too high. In this case, you should reduce the concentration of the probe or of the dye.

4 Technical data

Material	Polycarbonate, polypropylene (wells), autoclavable (121 °C, 20 min) in the non-sealed state.
Eppendorf PCR clean	Certified free of RNase, DNase, human DNA and PCR inhibitors*.
Eppendorf LoBind	Consumables with the highest recovery rates for DNA and RNA molecules. PCR clean.
Centrifugability	Centrifugable up to 2250 × g with PCR plate adapter in a swing-bucket rotor. twin.tec PCR Plate 96, unskirted, divisible: Centrifuge a maximum of two plate segments per bucket and place them in the center of the PCR plate adapter.
Storage	Protect from direct sunlight and UV light. Store dry at room temperature.
Operational temperature	-80 °C to +120 °C.

* Lot-specific certificates are available at www.eppendorf.com or certificates@eppendorf.de.

5 Ordering Information

Order no. (International)	Order no. (North America)	Description
0030 128.648	951020401	twin.tec PCR Plate 96, skirted wells colorless, 25 pieces low profile, clear
0030 128.575	951020303	twin.tec PCR Plate 96, semi-skirted wells colorless, 25 pieces standard profile, clear
0030 133.307 0030 133.358 0030 133.366 0030 133.374	0030133307 0030133358 0030133366 0030133374	twin.tec PCR Plate 96 unskirted wells colorless, 20 pieces low profile, clear low profile, divisible, clear standard profile, clear divisible, clear
0030 133.412	0030133412	twin.tec Adapter for LC 480 for PCR Plate 96, unskirted
0030 132.513	951022015	twin.tec real-time PCR Plate 96 skirted wells white, 25 pieces white

Instructions for use

Eppendorf twin.tec® PCR Plates
English (EN)

Order no. (International)	Order no. (North America)	Description
0030 132.548	951022055	twin.tec real-time PCR Plate 96 semi-skirted wells white, 25 pieces white
0030 132.700	0030132700	twin.tec real-time PCR Plate 96 unskirted wells white, 20 pieces low profile, white
0030 129.300	0030129300	twin.tec microbiology PCR Plate 96 skirted wells colorless, 10 pieces clear
0030 129.326	0030129326	twin.tec microbiology PCR Plate 96 semi-skirted wells colorless, 10 pieces clear
0030 128.508	951020702	twin.tec PCR Plate 384 wells colorless, 25 pieces clear
0030 132.734	0030132734	twin.tec real-time PCR Plate 384 wells white, 25 pieces white
0030 129.342	0030129342	twin.tec microbiology PCR Plate 384 wells colorless, 10 pieces clear
0030 129.512	0030129512	twin.tec PCR Plate 96 LoBind skirted wells colorless, 25 pieces clear
0030 129.504	0030129504	twin.tec PCR Plate 96 LoBind semi-skirted wells colorless, 25 pieces clear

More ordering information regarding color variants of Eppendorf twin.tec PCR Plates, Eppendorf PCR Film & Foil, Eppendorf PCR Tubes, PCR Tube Strips and PCR Cap Strips (real-time and standard PCR): www.eppendorf.com.

Patents

U.S. Patent No. 6,340,589
U.S. Patent No. 7,347,977
U.S. Patent No. 7,767,153

Your local distributor: www.eppendorf.com/contact

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