

## 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 Safety

### 1.1 Intended use

Eppendorf twin.tec PCR Plates are designed for single use in PCR applications.

The product 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 warranty for other applications. The product is not suitable for use in diagnostic or therapeutic applications. The product may only be used by skilled personnel who have been trained in the areas mentioned above.

The Eppendorf twin.tec PCR Plates *real-time* can be distinguished from the Eppendorf twin.tec PCR Plates by white wells. They are intended for real-time PCR.

The Eppendorf twin.tec PCR Plates *microbiology* possess additional purity characteristics. In addition to the PCR clean purity criterion (free of DNA, DNase, RNase and PCR inhibitors), these plates are free of bacterial DNA. They are produced under strictly controlled conditions according to ISO 9001 and ISO 13485. Additionally, gassing with ethylene oxide is performed.

The Eppendorf twin.tec PCR Plates *Forensic DNA Grade* are designed to meet the high requirements of forensic applications. They comply with ISO 18385 specifications. The tests are performed by an external test laboratory (accredited to ISO 17025). The purity criteria are specified in batch-specific certificates.



**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 safety data sheets and the manufacturer's application notes.
- ▶ Wear your personal protective equipment.
- ▶ Consult the "Laboratory Biosafety Manual" (source: World Health Organization, Laboratory Biosafety Manual, in its respectively current valid version).

**WARNING! Damage to health due to 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.
  - ▶ Close twin.tec PCR Plates prior to centrifugation. Observe the instructions in the device operating manual.
  - ▶ Store and transport twin.tec PCR Plates in such a manner that no material can escape from the twin.tec PCR Plates.
  - ▶ Do not use the twin.tec PCR Plates as cryogenic tubes.
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- ▶ 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.

## 2 Product description

The Eppendorf twin.tec PCR Plate is a polycarbonate/polypropylene single plate. Different sealing options ensure evaporation protection.

## 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

- ▶ Fill the twin.tec PCR Plates directly or in a suitable rack.

## 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.

## 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)  |
| Operational temperature      | -80 °C to +120 °C.  |
| Autoclavability              | 121 °C, 20 min, not closed  |
| Centrifugation stability     | Suitable for centrifugation at up to 2250 × <i>g</i> with PCR plate adapter in a swing-bucket rotor.<br>twin.tec PCR Plate 96, unskirted, divisible: <ul style="list-style-type: none"> <li>▶ Centrifuge a maximum of two plate segments per bucket.</li> <li>▶ Place the plate segments in the center of the PCR plate adapter.</li> </ul> |
| Eppendorf purity grade       | Batch testing (certified) for the following purity criteria:<br>Human DNA-free, DNase-free, RNase-free and free of PCR inhibitors*.   |
| Eppendorf LoBind             | Consumables with the highest recovery rates for DNA molecules and RNA molecules. PCR clean.   |
| Eppendorf Forensic DNA Grade | Consumables with the "Eppendorf Forensic DNA Grade" purity grade meet ISO 18385* requirements.  |
| Storage before use           | <ul style="list-style-type: none"> <li>▶ Protect from direct sunlight and UV light.</li> <li>▶ Store dry at ambient temperature.</li> </ul>   |

\*) Batch-specific certificates are available on the Internet at: [www.eppendorf.com/certificates](http://www.eppendorf.com/certificates).

## 5 Ordering information

| Order no.<br>(International) | Order no.<br>(North America) | Description   |
|------------------------------|------------------------------|---|
| 0030 128.648<br>0030 129.601 | 951020401<br>0030129601      | <b>Eppendorf twin.tec PCR Plate 96</b><br>skirted, 150 µL<br>PCR clean, colorless, 25 pcs.<br>Forensic DNA Grade, colorless, 10 pcs., individually wrapped        |
| 0030 128.575<br>0030 129.610 | 951020303<br>0030129610      | <b>Eppendorf twin.tec PCR Plate 96</b><br>semi-skirted, 250 µL<br>PCR clean, colorless, 25 pcs.<br>Forensic DNA Grade, colorless, 10 pcs., individually wrapped   |
| 0030 133.307                 | 0030133307                   | <b>Eppendorf twin.tec PCR Plate 96, low profile</b><br>unskirted, 150 µL<br>PCR clean, colorless, 20 pcs.   |
| 0030 133.358                 | 0030133358                   | <b>Eppendorf twin.tec PCR Plate 96, divisible</b><br>unskirted, 150 µL<br>PCR clean, colorless, 20 pcs.   |
| 0030 133.366                 | 0030133366                   | <b>Eppendorf twin.tec PCR Plate 96</b><br>unskirted, 250 µL<br>PCR clean, colorless, 20 pcs.  |
| 0030 133.374                 | 0030133374                   | <b>Eppendorf twin.tec PCR Plate 96, divisible</b><br>unskirted, 250 µL<br>PCR clean, colorless, 20 pcs.   |
| 0030 133.412                 | 0030133412                   | <b>twin.tec Adapter for LC 480</b><br>for PCR Plate 96, unskirted   |
| 0030 132.513<br>0030 129.636 | 951022015<br>0030129636      | <b>Eppendorf twin.tec 96 real-time PCR Plate</b><br>skirted, 150 µL<br>PCR clean, white, 25 pcs.<br>Forensic DNA Grade, white, 10 pcs., individually wrapped      |
| 0030 132.548<br>0030 129.644 | 951022055<br>0030129644      | <b>Eppendorf twin.tec 96 real-time PCR Plate</b><br>semi-skirted, 250 µL<br>PCR clean, white, 25 pcs.<br>Forensic DNA Grade, white, 10 pcs., individually wrapped |

| Order no.<br>(International) | Order no.<br>(North America) | Description  |
|------------------------------|------------------------------|--|
| 0030 132.700                 | 0030132700                   | <b>Eppendorf twin.tec 96 real-time PCR Plate, low profile</b><br>unskirted, 150 µL<br>PCR clean, white, 20 pcs.  |
| 0030 129.300                 | 0030129300                   | <b>Eppendorf twin.tec microbiology PCR plate 96</b><br>skirted, 150 µL<br>PCR clean, colorless, 10 pcs.  |
| 0030 129.326                 | 0030129326                   | <b>Eppendorf twin.tec microbiology PCR plate 96</b><br>semi-skirted, 250 µL<br>PCR clean, colorless, 10 pcs.   |
| 0030 128.508<br>0030 129.628 | 951020702<br>0030129628      | <b>Eppendorf twin.tec PCR Plate 384</b><br>skirted, 40 µL<br>PCR clean, colorless, 25 pcs.<br>Forensic DNA Grade, colorless, 10 pcs., individually wrapped |
| 0030 129.342                 | 0030129342                   | <b>Eppendorf twin.tec microbiology PCR plate 384</b><br>skirted, 40 µL<br>PCR clean, colorless, 10 pcs.  |
| 0030 129.512                 | 0030129512                   | <b>Eppendorf twin.tec PCR Plates 96 LoBind, skirted</b><br>PCR clean, colorless, 25 pcs.   |
| 0030 129.504                 | 0030129504                   | <b>Eppendorf twin.tec PCR Plates 96 LoBind, semi-skirted</b><br>PCR clean, colorless, 25 pcs.  |
| 0030 129.547                 | 0030129547                   | <b>Eppendorf twin.tec PCR Plates 384 LoBind</b><br>skirted<br>PCR clean, colorless, 25 pcs.  |

Additional ordering information for color variants of Eppendorf twin.tec PCR Plates, Eppendorf PCR Film & Foil, Eppendorf PCR Tubes, PCR Tube Strips, and PCR Cap Strips (real-time PCR and standard PCR): [www.eppendorf.com](http://www.eppendorf.com).

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**Protected by U.S. Patent Nos.**

|                 |           |
|-----------------|-----------|
| U.S. Patent No. | 6,340,589 |
| U.S. Patent No. | 7,347,977 |
| U.S. Patent No. | 7,767,153 |
| U.S. Patent No. | 8,636,965 |

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**Your local distributor: [www.eppendorf.com/contact](http://www.eppendorf.com/contact)**

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