

eppendorf



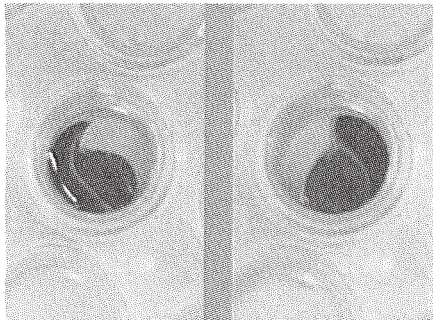
The Value of Mixing

Eppendorf Temperature Control and Mixing Instruments



»Beyond your expectations: Eppendorf temperature control and mixing instruments.«

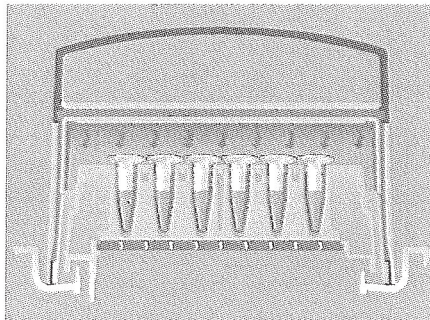
Eppendorf offers a wide range of high-quality, user-oriented and smart mixing and temperature control instruments. 50 years of experience in the field of mixing and temperature control enabled us to create another benchmark instrument – fitting to your needs.



Still unmixed results?

- > Outstanding 2D Mix-Control technology mixes liquids in a controlled, circular movement for fast and reliable mixing in tubes and plates
- > Anti-spill technology reliably prevents lid wetting and cross-contamination

> More information: page 4



Worried about temperature management?

- > Eppendorf ThermoTop® prevents condensation for improved assay performance
- > Individually sensor-controlled Eppendorf SmartBlock™ provides maximum temperature accuracy and block homogeneity
- > Dry incubation technology reduces contamination risk and increase lab hygiene

> More information: page 6



Suffering from non-ergonomic design?

- > Eppendorf QuickRelease™ technology for easy exchange of thermoblocks
- > Low noise level for stress-free work
- > Predefined program or temperature keys for easy operation

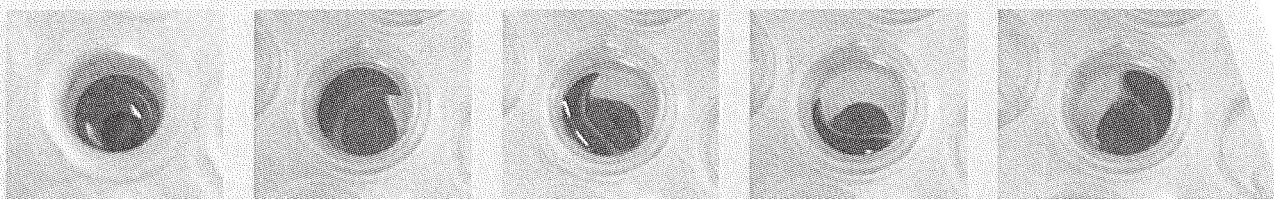
> More information: page 7

Sample Mixing – Eppendorf ^{2D}Mix-Control

Facing irregular mixing results?

Reliable sample mixing is far beyond simple mixing, especially when talking about microliter volumes. After decades of offering mixing devices, we found a way to expand reliable mixing performance to the microliter scale:

The Eppendorf ^{2D}Mix-Control. Orbital circular paths with a diameter of 3 mm and up to 3,000 rpm. Generates excellent mixing performance, even for challenging samples.



Topview of timelapse photography of controlled mixing by Eppendorf ^{2D}Mix-Control
(one well of a skirted Eppendorf twin.tec® PCR Plate 96, filled with 75 µL water with dye Ponceau 4R). Sample without mixing (left photo) and at 1,650 rpm mixing speed (4 time-lapse photos). The ^{2D}Mix-Control technology enables liquid mixing in a very controlled, circular movement. The lack of chaotic splashing enables mixing without lid wetting or cross-contamination.



Mixing Comparison

50 µL sample mixing with 1,800 rpm

Competitor 1 min



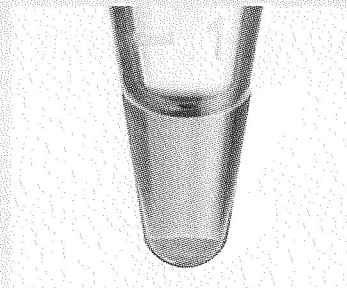
Suboptimal
sample mixing

Eppendorf ^{2D}Mix-Control 1 min
(MixMate®)



Reliable
sample mixing

Eppendorf ^{2D}Mix-Control 1 min
(Eppendorf ThermoMixer®)



Reliable
sample mixing



> Video clip about Eppendorf ^{2D}Mix-Control
> Further information available at: [\[redacted\]](#)

Flexibility for Your Vessels – Eppendorf SmartBlock™



SmartBlock removal from Eppendorf ThermoMixer® C



condens.protect®

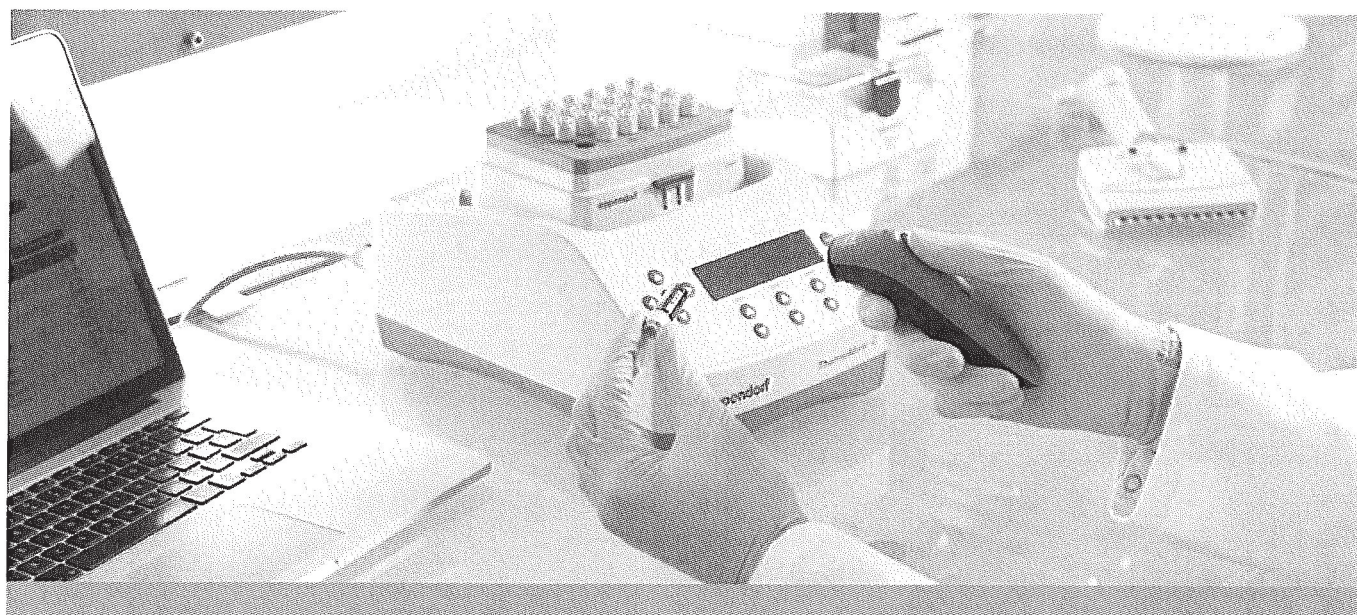
Compatible Eppendorf SmartBlocks feature the condens.protect® symbol.

Using different vessel sizes within your lab workflow?

Flexibility has never been this easy. Eppendorf offers a broad range of SmartBlocks for tubes from 0.2 mL to 50 mL as well as plates (MTP, DWP, and PCR plates 96/384). All SmartBlocks are equipped with the outstanding Eppendorf QuickRelease system that makes the block exchange super fast and easy. Just press the lever on the front of the block and the block can be removed – no tools are needed, done in seconds.

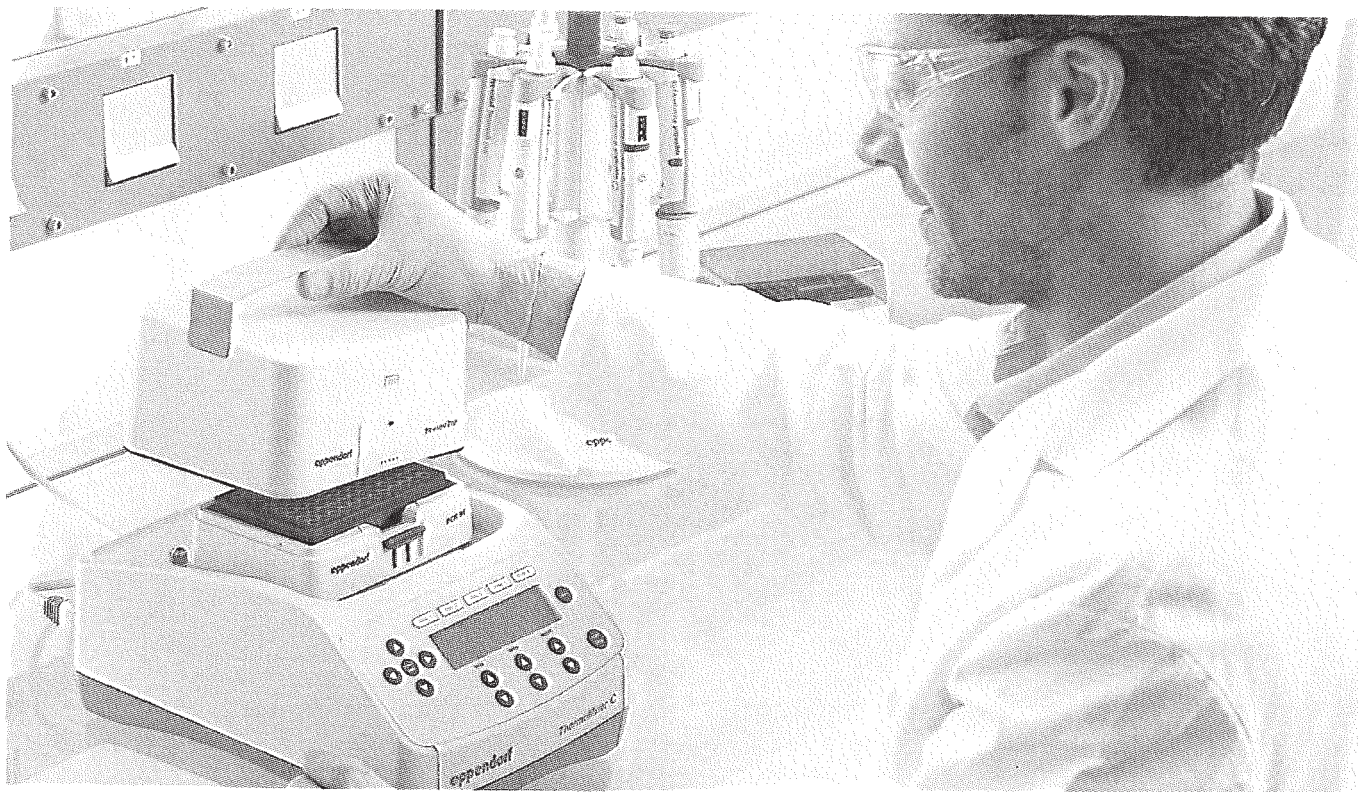
Benefits

- > Optimized block design supports optimal temperature transfer within your sample to receive excellent results
- > Eppendorf SmartBlock-specific calibration by integrated sensor technology maximizes temperature accuracy and homogeneity
- > Every SmartBlock is individually inspected in production for temperature accuracy and is delivered incl. a serial-number specific certificate for documentation purpose
- > Insulated SmartBlocks for ergonomic operation – you won't burn your fingers
- > Automatic block recognition for safe handling



- > Video clip about Eppendorf QuickRelease of Eppendorf SmartBlocks
- > Further information available at: [\[Redacted URL\]](#)



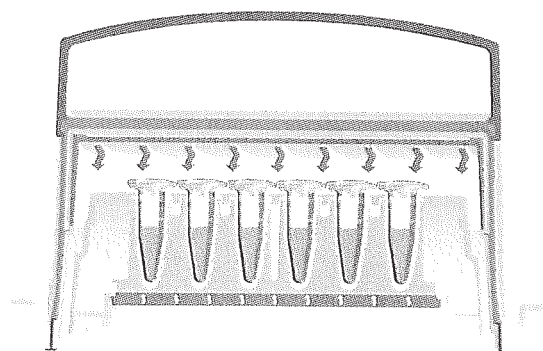


Sample Temperature – Eppendorf ThermoTop®

Tired of condensation in your tubes?

We combined the Eppendorf ThermoMixer with the PCR cycler approach of a heated lid and generated the Eppendorf ThermoTop.

The outstanding Eppendorf condens.protect technology reliably prevents condensation within the tube lid – sample concentrations are consistent for the incubation time. In addition, the temperature homogeneity is further improved. Get optimal sample reaction conditions to produce optimal results.



Benefits

- > Efficient and reliable condensation prevention on tube lids for safe sample heating
- > Get constant reaction conditions for optimal enzymatic performance within your sample
- > Wireless connection with automatic recognition and operation for user-friendly handling

Principle:

As soon as the Eppendorf ThermoTop is placed on the device, heating starts. The heating temperature is optimally adapted to the test temperature ensuring optimal sample safety: No way for condensation to form in your sample tube lids.

Compatible to SmartBlock™ of volume of up to 2.0 mL

Eppendorf ThermoMixer® C	■
Eppendorf ThermoMixer® F	■
Eppendorf ThermoStat™ C	■

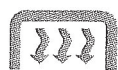
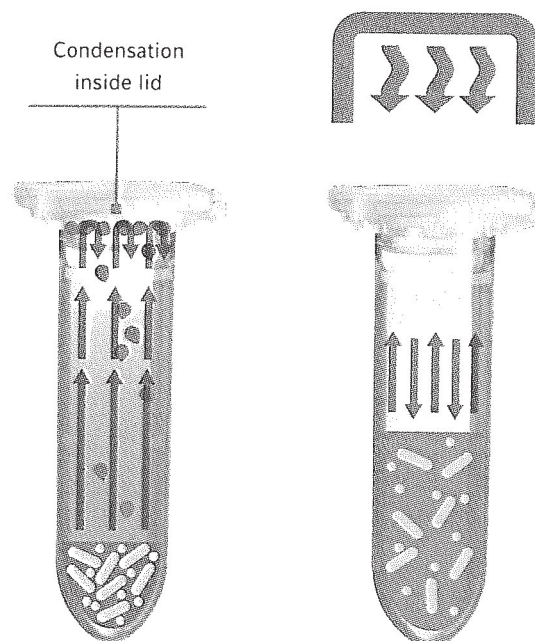


> Video clip about condensation prevention by using the Eppendorf ThermoTop

Advantages of condensation prevention during incubation

Evaporation of H₂O and condensation within the tube lid changes the buffer concentration in reactions. Suboptimal concentrations in enzymatic reactions can result in lower enzymatic performance.

Using the Eppendorf ThermoTop effectively prevents the condensation within the tube lid, resulting in optimal reaction conditions. Besides, you save time as condensation-free tubes can skip the post-heating spinning step.



condens.protect®

Compatible Eppendorf
SmartBlocks feature the
condens.protect symbol.

Ergonomics – Eppendorf PhysioCare Concept®

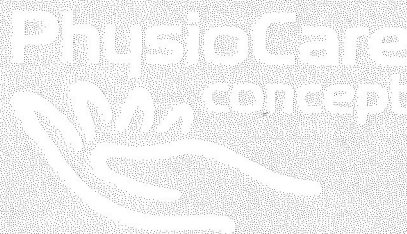
Annoyed by uncomfortable handling?

Ergonomics is far beyond the »ergonomically designed chair«. Eppendorf started to optimize the laboratory devices regarding ergonomics already in the early 1970s.

In 2003, we started the PhysioCare Concept, focusing on ergonomic liquid handling devices like our pipettes.

Nowadays, the Eppendorf PhysioCare Concept is broaden up to include further laboratory products as a holistic solution to harmonize the workflow in your laboratory with your health and well-being, e.g. for the Eppendorf ThermoMixer:

- > Eppendorf QuickRelease for easy and fast block exchange
- > Insulated SmartBlock for safe gripping/ no burning of fingers
- > Direct keys for convenient handling
- > Small footprint to enable position in direct arm reach at your bench
- > Standardized »user-interface concept« for intuitive handling of devices



> Video clip about ergonomic aspects of the Eppendorf ThermoMixer
> www.eppendorf.com/physiocare



Eppendorf ThermoMixer® C – Heating/Mixing/Cooling

You need everything?

The Eppendorf ThermoMixer C combines excellent mixing performance with excellent temperature control to guarantee complete, dependable, and reproducible results.

Improve your assay results by mixing and incubating your samples at the same time – with highest vessel flexibility.

Eppendorf QuickRelease

- > Ergonomic and simple exchange of SmartBlocks

Easy display reading

- > Clearly arranged display for easy reading and precise parameter selection

Block recognition

- > Automatic SmartBlock recognition for automatic adaption of settings

Program keys

- > Fast and simple access to the most frequently used mixing/temperature parameters
- > Freely programmable (Eppendorf ThermoMixer C only)

Easy setting access

- > Clearly arranged tabs to change specific values for fast access

Menu

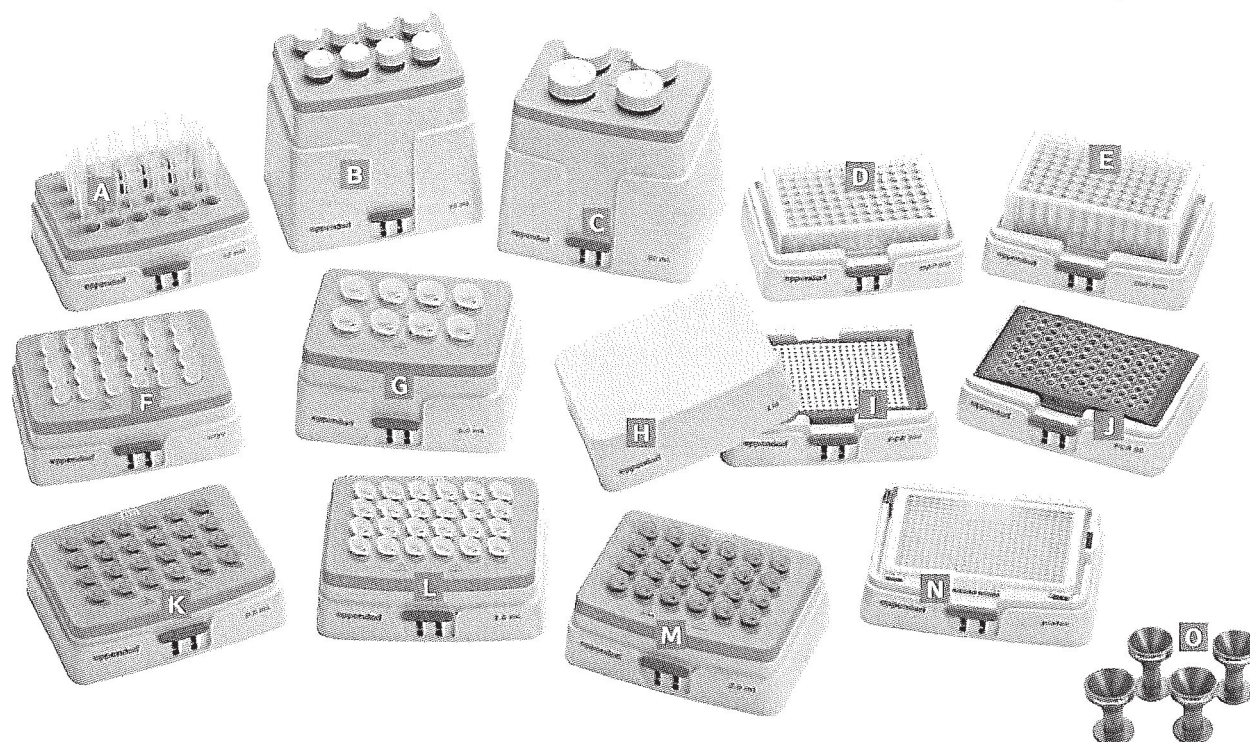
- > Simple and intuitive operation
- > Save up to 20 user defined programs
- > Set heating and cooling rates, select desired time mode
- > Change device settings: key lock, signal tones, contrast, service interval, and menu language

High stability and small footprint

- > Very stable—remains stationary even at maximum mixing speed



> Video clip about Eppendorf ThermoMixer – then and now



Benefits

- > Mixing, heating, and cooling in one instrument for high flexibility
- > All common vessels and plate formats from 5 μ L to 50 mL by different Eppendorf SmartBlocks for standard applications
- > Outstanding ^{2D}Mix-Control technology results in excellent mixing performance
- > Increased mixing frequency of up to 3,000 rpm for effective sample mixing
- > Anti-spill technology prevents lid wetting and cross-contamination
- > Excellent temperature management for maximum temperature accuracy, resulting in safe sample handling
- > Compatible with Eppendorf ThermoTop (condens.protect) for condensation-free sample handling (for Eppendorf SmartBlocks up to 2.0 mL)
- > Predefined program keys and clearly arranged menu guides enables simple and intuitive operations
- > Freely programmable program keys for individual optimization
- > Eppendorf PhysioCare Concept provides ergonomic design and operation

Eppendorf SmartBlocks for the following reaction vessels (Eppendorf ThermoMixer C and Eppendorf ThermoStat C):

- A. 24x lab vessels, 12 mm in diameter
- B. 8 x 15 mL conical tubes
- C. 4 x 50 mL conical tubes
- D. Eppendorf Deepwell Plates 96/500 μ L
- E. Eppendorf Deepwell Plates 96/1,000 μ L
- F. 24x cryotubes
- G. 8 x 5.0 mL Eppendorf Tubes®
- H. Lid for Eppendorf SmartBlocks plates, PCR 96, PCR 384, 0.5 mL, 1.5 mL, and 2.0 mL
- I. 384-well PCR plates
- J. 96-well PCR plates, 0.2 mL PCR tubes
- K. 24 x 0.5 mL vessels
- L. 24 x 1.5 mL vessels
- M. 24 x 2.0 mL vessels
- N. MTPs and deepwell plates
- O. 4 x 25 mL adapter for SmartBlock 50 mL