

Product Guide

2020





Nolato Treff AG, formerly named Treff AG, is the Swiss subsidiary of the Swedish Nolato Group. Since 1946 it has been intensively involved in the development and manufacture of high-quality components made from thermoplastic materials. Apart from the production of high precision plastic parts for the industrial, diagnostic and medical sector, DNA free laboratory products are manufactured and distributed globally by an agency network using the brand name TreffLab®.

The company is certified according to ISO 9001, ISO 13485, ISO 14001 and ISO 22000. Plastic parts are manufactured (4-shift production) on more than 80 injection molding machines (15-350 t) on a total area of 12500 m², thereof 2500 m² microbiologically controlled cleanroom area.



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TreffLab – Laboratory plastic consumables Swiss Quality on a top level.

Laboratory plastic consumables for manual use, fabricated by Nolato Treff AG, are produced in microbiologically controlled cleanrooms ISO class 8 on most modern production lines and sold worldwide by the TreffLab representatives.




Continuous monitoring of product quality and permanent cleanroom inspection/requalification by external experts guarantee Swiss quality at a top level.

Please call our customer service for further information on our products – certificates, technical datasheets, etc.

Intended use: For Research and Development only

General terms and conditions of Nolato Treff AG see: www.trefflab.com

TreffLab Quality Grades

Characteristics	CleanRoom Pure®	LoTrace® DNA	LoTrace® Forensics
	 CleanRoom® PURE	 LoTrace® DNA	 LoTrace® FORENSICS
Free of RNase	•	•	•
Free of DNase	•	•	•
Free of human DNA	•	•	•
Free of PCR inhibitors	•	•	•
Free of endotoxins (pyrogenes, LAL2)	•	•	•
Free of ATP (Luciferase)	•	•	•
Low binding DNA (PCR)		•	•
Ethylene oxide treatment			•
Product group certificate	•	•	•
Lot Certificate	(•)*	(•)*	•

(•)* on request

CleanRoom Pure®

Absolutely PURE Right From The Start

► **ISO 14644-1 Clean Room Class 8 Production**

Microbiological and 24/7 environmental monitored
Contamination free production
No human DNA

► **Quality Parameters**

Free of RNase (< 5x10E-9 Kunitz units)
Free of DNase (< 5x10E-6 Kunitz units)
Free of human DNA (< 2 pg DNA)
Free of PCR inhibitors (< 10 copies)
Free of endotoxins (< 0.001 EU/ml)
Free of ATP (< 30 RLU)



High Throughput but Precise – Obstacles in Bioanalysis

► **«The Well-Known»**

RNase Enzymes that cleave RNA
DNase Enzymes that cleave DNA
Human DNA Contaminates DNA to be analyzed
PCR inhibitors Deactivates «PCR» polymerases
Endotoxins Influences metabolic pathways
ATP The molecular battery of all life on earth

► **«The Pain»**

RNase Prevents RNA research
DNase Prevents DNA research
Human DNA Causes wrong DNA analysis
PCR inhibitors Prevents PCR analysis
Endotoxins Influences metabolic analysis
ATP There is «unknown life» contamination

► **«The Aid» - TreffLab CleanRoom Pure® Quality**

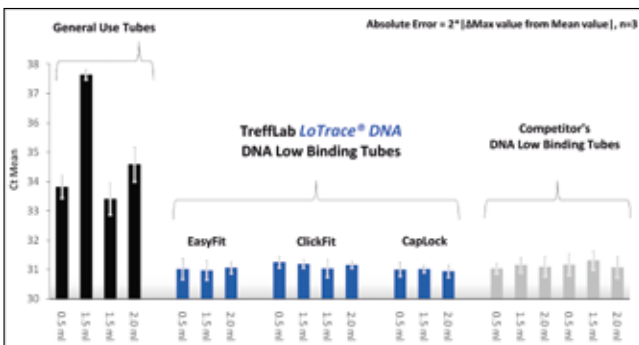
Never Lose Your Valuable DNA Trace Sample with Nolato Treff Low Binding PCR Grade

► **LoTrace® DNA**

- DNA low binding surface
- No additives
- CleanRoom Pure® production environment

Our «LoTrace® DNA» TreffLab products are designed for molecular-biological and biochemical DNA sample preparation and DNA assays. These products are manufactured in accordance with TreffLab standard «CleanRoom Pure®» from virgin polypropylene granulate in a special additive-free process to support users in their need for «DNA neutral» non-binding sample containers for lossless DNA purification.

Comparison – Normal Grade Tubes vs. Low Binding Tubes



High Ct in real time PCR indicates high loss of DNA during sample preparation with normal grade tubes.

Analyses of surface quality were carried out by an independent Swiss laboratory accredited ISO/IEC17025 for real-time PCR

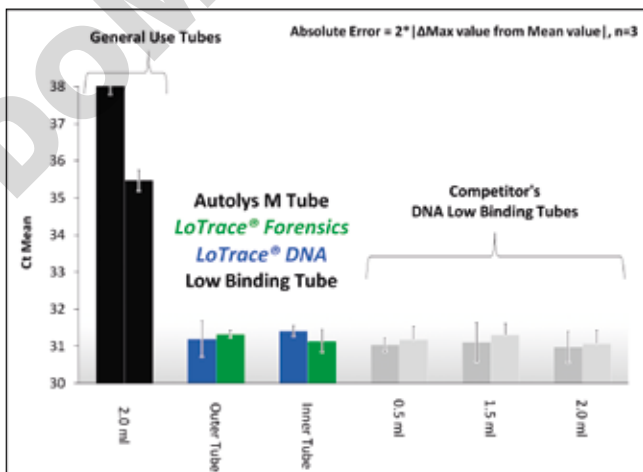
LoTrace® Forensics

A Double Security Level for your DNA Analyses

► **LoTrace® DNA**

- Ethylene Oxide (EO) processed
- DNA low binding surface
- No additives
- CleanRoom Pure® production environment

Our «LoTrace® Forensics» Microtubes are designed for DNA sample preparation and DNA assays to comply with the special requirements of forensics DNA analysis. These microtubes are manufactured in accordance with the TreffLab standard «CleanRoom Pure®» from virgin polypropylene granulates. A special additive-free process guaranties users «DNA neutral» non-binding sample containers for lossless DNA purification. In addition, the already absolutely pure surface is treated with Ethylene Oxide, as recommended by forensic applications to provide double security level.



► **ISO 18385, ISO 11135**

Reduction factor human DNA	> 1000
Reduction Factor DNase	2.9
Reduction factor RNase	10
Ct value shift of PCR inhibitor	> 1



DOMINIQUE DUISCHER SAS



Microtubes

General Characteristics

TreffLab offers a huge variety of CleanRoom Pure® microtubes for all kinds of applications such as general laboratory purposes, heat incubation, rare analytes and light sensitive probes.



TreffLab CapLock, *CleanRoom Pure*®

Microtubes featuring the unique Treff Double-Lock™ cap closing system to safely prevent unintentional opening of lid during incubation or storage when working with valuable or «critical» probes.



TreffLab ClickFit, *CleanRoom Pure*®

Microtubes for general and special purpose with increased cap opening forces for procedures including higher vapor pressure. Suited for denaturation protocols near boiling point of H₂O.



TreffLab EasyFit, *CleanRoom Pure*®

Microtubes with easy cap opening forces for general purpose to serve as sample preparation, centrifuge, assay and storage vessel.

All TreffLab Microtubes CleanRoom Pure® feature the following characteristics:

- ▶ 100% virgin polymer only, providing high chemical quality, no additives
- ▶ All color dyes are masterbatch «medical grade»
- ▶ Microbiological controlled production in cleanrooms class 8, ISO 14644-1
- ▶ Free of RNase, DNase, human DNA, endotoxins, PCR inhibitors and ATP
- ▶ Withstand a temperature range from approx. -195°C (gas phase of liquid nitrogen) to 121°C (autoclaving 20 minutes, 100% humidity) according to DIN EN 285
- ▶ Withstand centrifugal g forces up to 30'000 RCF (0.2 ml, 0.5 ml, 1.5 ml) and up to 20'000 RCF (2.0 ml)
- ▶ Ready to Use (CleanRoom Pure®)

Additional new qualities

LoTrace® DNA quality features the following additional characteristics:

- ▶ Low binding DNA surface
- ▶ Analyses of surface quality for each production lot
- ▶ Analysis carried out by independent Swiss laboratory accredited ISO/IEE17025 for real-time PCR
- ▶ CleanRoom Pure® production conditions
- ▶ Ready for low content DNA sample preparation/ assay

CapLock Microtubes *CleanRoom Pure®*

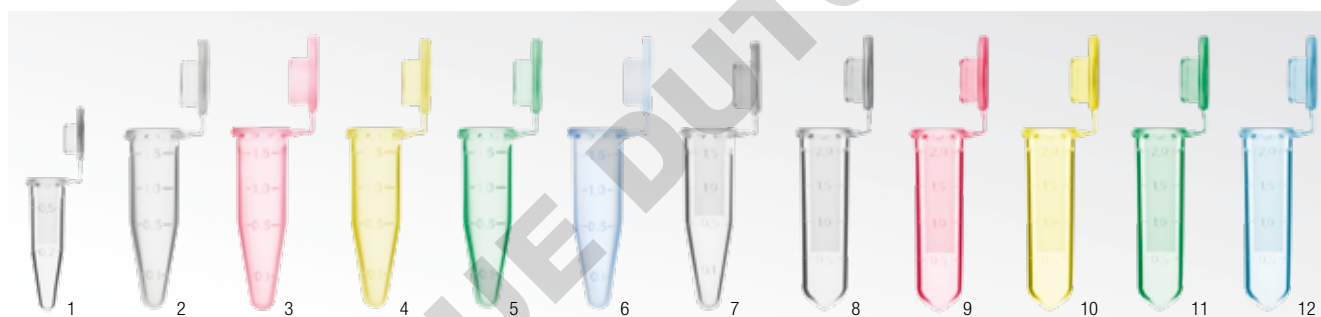
Field of application: The **Treff Double-Lock™** cap closing system safely prevents unintentional opening of the lid during incubation or storage.



Product Description	Material	Colour	Quantity	Order No.	Image No.
CapLock 0.5 ml	PP	clear	20'000 – 40 bags of 500	96.10833.9.01	1
CapLock 1.5 ml	PP	clear	10'000 – 10 bags of 1'000	96.08668.9.01	2
CapLock 2.0 ml	PP	clear	8'000 – 16 bags of 500	96.10834.9.01	3

ClickFit Microtubes *CleanRoom Pure®*

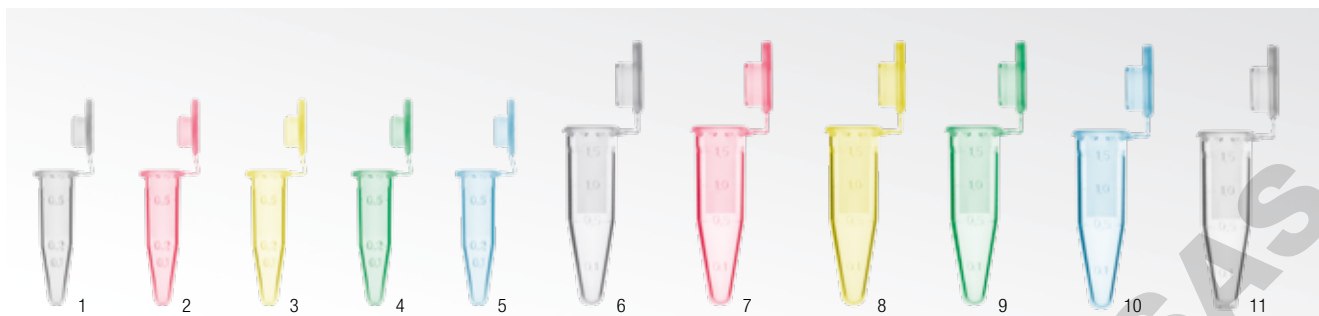
Field of application: Increased cap opening force for heating applications.



Product Description	Material	Colour	Quantity	Order No.	Image No.
ClickFit 0.5 ml	PP	high transparent, clear	20'000 – 40 bags of 500	96.08185.9.03	1
ClickFit 1.5 ml	PP	clear	10'000 – 10 bags of 1'000	96.07514.9.01	2
ClickFit 1.5 ml	PP	rose	10'000 – 10 bags of 1'000	96.07514.2.01	3
ClickFit 1.5 ml	PP	yellow	10'000 – 10 bags of 1'000	96.07514.4.01	4
ClickFit 1.5 ml	PP	green	10'000 – 10 bags of 1'000	96.07514.5.01	5
ClickFit 1.5 ml	PP	blue	10'000 – 10 bags of 1'000	96.07514.6.01	6
ClickFit 1.5 ml	PP	high transparent, clear	10'000 – 10 bags of 1'000	96.07811.9.03	7
ClickFit 2.0 ml	PP	clear	8'000 – 16 bags of 500	96.09329.9.01	8
ClickFit 2.0 ml	PP	rose	8'000 – 16 bags of 500	96.09329.2.01	9
ClickFit 2.0 ml	PP	yellow	8'000 – 16 bags of 500	96.09329.4.01	10
ClickFit 2.0 ml	PP	green	8'000 – 16 bags of 500	96.09329.5.01	11
ClickFit 2.0 ml	PP	blue	8'000 – 16 bags of 500	96.09329.6.01	12

EasyFit Microtubes *CleanRoom Pure*[®]

Field of application: Gentle cap opening force for general purpose usage and storage.
However, for heat incubations we recommend the use of ClickFit Microtubes CleanRoom Pure[®].



Product Description	Material	Colour	Description	Quantity	Order No.	Image No.
EasyFit 0.5 ml	PP	clear	round bottom	20'000 – 40 bags of 500	96.04625.9.01	1
EasyFit 0.5 ml	PP	rose	round bottom	20'000 – 40 bags of 500	96.04625.2.01	2
EasyFit 0.5 ml	PP	yellow	round bottom	20'000 – 40 bags of 500	96.04625.4.01	3
EasyFit 0.5 ml	PP	green	round bottom	20'000 – 40 bags of 500	96.04625.5.01	4
EasyFit 0.5 ml	PP	blue	round bottom	20'000 – 40 bags of 500	96.04625.6.01	5
EasyFit 1.5 ml	PP	clear	round bottom	10'000 – 10 bags of 1'000	96.07246.9.01	6
EasyFit 1.5 ml	PP	rose	round bottom	10'000 – 10 bags of 1'000	96.07246.2.01	7
EasyFit 1.5 ml	PP	yellow	round bottom	10'000 – 10 bags of 1'000	96.07246.4.01	8
EasyFit 1.5 ml	PP	green	round bottom	10'000 – 10 bags of 1'000	96.07246.5.01	9
EasyFit 1.5 ml	PP	blue	round bottom	10'000 – 10 bags of 1'000	96.07246.6.01	10
EasyFit 1.5 ml	PP	clear	flat bottom	10'000 – 10 bags of 1'000	96.10234.9.01	11

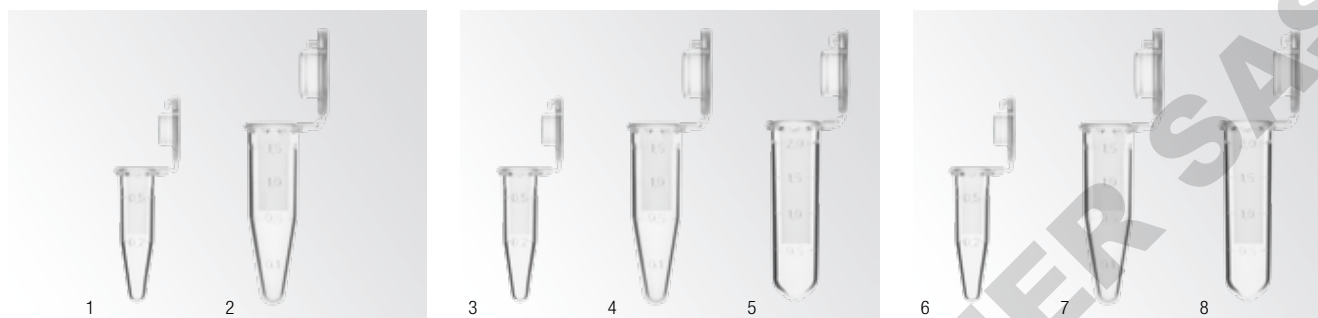


LoTrace® DNA Microtubes *low binding DNA surface*

- ▶ Low binding DNA surface
- ▶ Analyses of surface quality for each production lot
- ▶ Analysis by independent Swiss laboratory accredited ISO/IEE17025 for real-time PCR
- ▶ Ready for low content DNA sample preparation/assay
- ▶ CleanRoom Pure® production conditions



Never Lose Your Valuable DNA Trace Sample during Sample Preparation



Product Description	Material	Colour	Description	Quantity	Order No.	Image No.
EasyFit LoTrace® DNA 0.5 ml	PP	clear	round bottom	20 bags of 100	96.04625.9.04	1
EasyFit LoTrace® DNA 1.5 ml	PP	clear	round bottom	10 bags of 100	96.07246.9.04	2
ClickFit LoTrace® DNA 0.5 ml	PP	clear	round bottom	20 bags of 100	96.08185.9.04	3
ClickFit LoTrace® DNA 1.5 ml	PP	clear	round bottom	10 bags of 100	96.07811.9.04	4
ClickFit LoTrace® DNA 2.0 ml	PP	clear	round bottom	10 bags of 100	96.09329.9.04	5
CapLock LoTrace® DNA 0.5 ml	PP	clear	round bottom	20 bags of 100	96.10833.9.04	6
CapLock LoTrace® DNA 1.5 ml	PP	clear	round bottom	10 bags of 100	96.08668.9.04	7
CapLock LoTrace® DNA 2.0ml	PP	clear	round bottom	10 bags of 100	96.10834.9.04	8

LoTrace® DNA LightBlock™ Microtubes *low binding DNA surface*

Field of application: Sample preparation and storage of light sensitive samples, black/increased opening force



Product Description	Material	Colour	Description	Quantity	Order No.	Image No.
LightBlock™ LoTrace® DNA 0.5 ml	PP	black	round bottom	20 bags of 100	96.07456.0.04	1
LightBlock™ LoTrace® DNA 1.5 ml	PP	black	round bottom	10 bags of 100	96.07514.0.04	2
LightBlock™ LoTrace® DNA 2.0 ml	PP	black	round bottom	10 bags of 100	96.09329.0.04	3

Pellet Mixer for TreffLab Microtubes

Quality characteristics: Grooved grip for easy turning / autoclavable (121°C/20 min).

Field of application: To resuspend probe.



Product Description	Material	Application	Quantity	Order No.	Image No.
Pellet Mixer	PBTP	for Microtubes 0.5 ml	50	96.07338.9.03	1
Pellet Mixer	PBTP	for Microtubes 1.5 ml	50	96.07339.9.03	2

TreffLab Microtube Opener

Field of application: Easy opening of Microtubes with gloves.



Product Description	Material	Application	Color	Quantity	Order No.	Image No.
Opener	PP	for Microtubes 0.2- 5.0 ml	red	500 – 50 bags of 10	96.11453.2.01	1
Opener	PP	for Microtubes 0.2- 5.0 ml	orange	500 – 50 bags of 10	96.11453.3.01	2
Opener	PP	for Microtubes 0.2- 5.0 ml	yellow	500 – 50 bags of 10	96.11453.4.01	3
Opener	PP	for Microtubes 0.2- 5.0 ml	green	500 – 50 bags of 10	96.11453.5.01	4
Opener	PP	for Microtubes 0.2- 5.0 ml	blue	500 – 50 bags of 10	96.11453.6.01	5
Opener	PP	for Microtubes 0.2- 5.0 ml	Color Mix 10	500 – 50 bags of 10 of each color	96.11453.10.01	1-5

TreffLab Storage Box

Field of application: Autoclavable laboratory storage box for microtubes, vials other small laboratory items.



Product Description	Material	Application	Color	Quantity	Order No.	Image No.
Storage Box	PC	for general storage purpose	clear	12 pcs	96.11564.9.01	1





CleanRoom®
PURE



LoTrace®
DNA

TreffLab PCR/ qPCR Products

TreffLab PCR/qPCR products have been specifically developed for PCR approach requirements such as highest heat transfer, to ensure accurate cycle profiles for best nucleic acid amplification rates, and to optimize fluorescence signal detection and measuring range.

General Characteristics – PCR Tubes and Plates

TreffLab PCR Microtubes and Plates, PP, have been specifically developed to deal with special PCR requirements such as low sample volume and low amount of target. Low binding DNA surface quality.

General Characteristics – Real-Time PCR Tubes and Plates

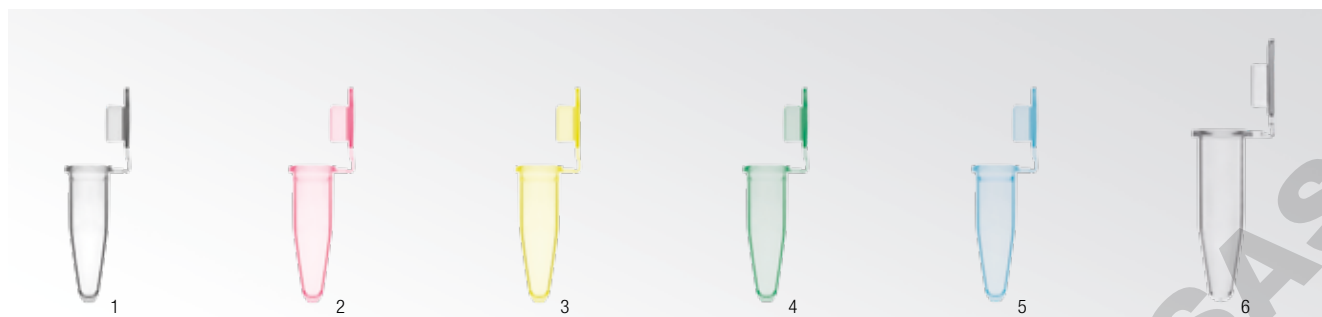
TreffLab qPCR Microtubes and Plates, PP, have been specifically developed to deal with special Real-Time PCR requirements such as optimized reflection of fluorescence signals for direct quantitate DNA measurement. They are 100% sensitivity safe and enable rare nucleic acid sequences to be detected and analyzed. Low binding DNA surface quality.

TreffLab PCR/qPCR products CleanRoom Pure® feature the following characteristics:

- ▶ 100% virgin high-quality PP only, no additives, providing high chemical quality
- ▶ White color dye is masterbatch «medical grade»
- ▶ Microbiological controlled production in cleanrooms class 8, ISO 14644-1
- ▶ Free of RNase, DNase, human DNA, endotoxins, PCR inhibitors and ATP
- ▶ Withstand a temperature range from approx. -195°C (gas phase of liquid nitrogen) to 121°C autoclaving 20 minutes, 100% humidity) according to DIN EN 285
- ▶ Single Tubes withstand centrifugal g forces up to 30'000 RCF
- ▶ Ultrathin walls guarantee rapid heat transfer and short cycle times
- ▶ Plates with ANSI/SLAS 2004 standard for robotic handling
- ▶ Special surface quality minimizes binding of enzymes and nucleic acid to the wells
- ▶ Suitable for use in common thermal cyclers
- ▶ Ready to Use (CleanRoom Pure®/LoTrace® DNA)

Available on request: Compatibility matrix thermal cycler/
TreffLab PCR/qPCR plates

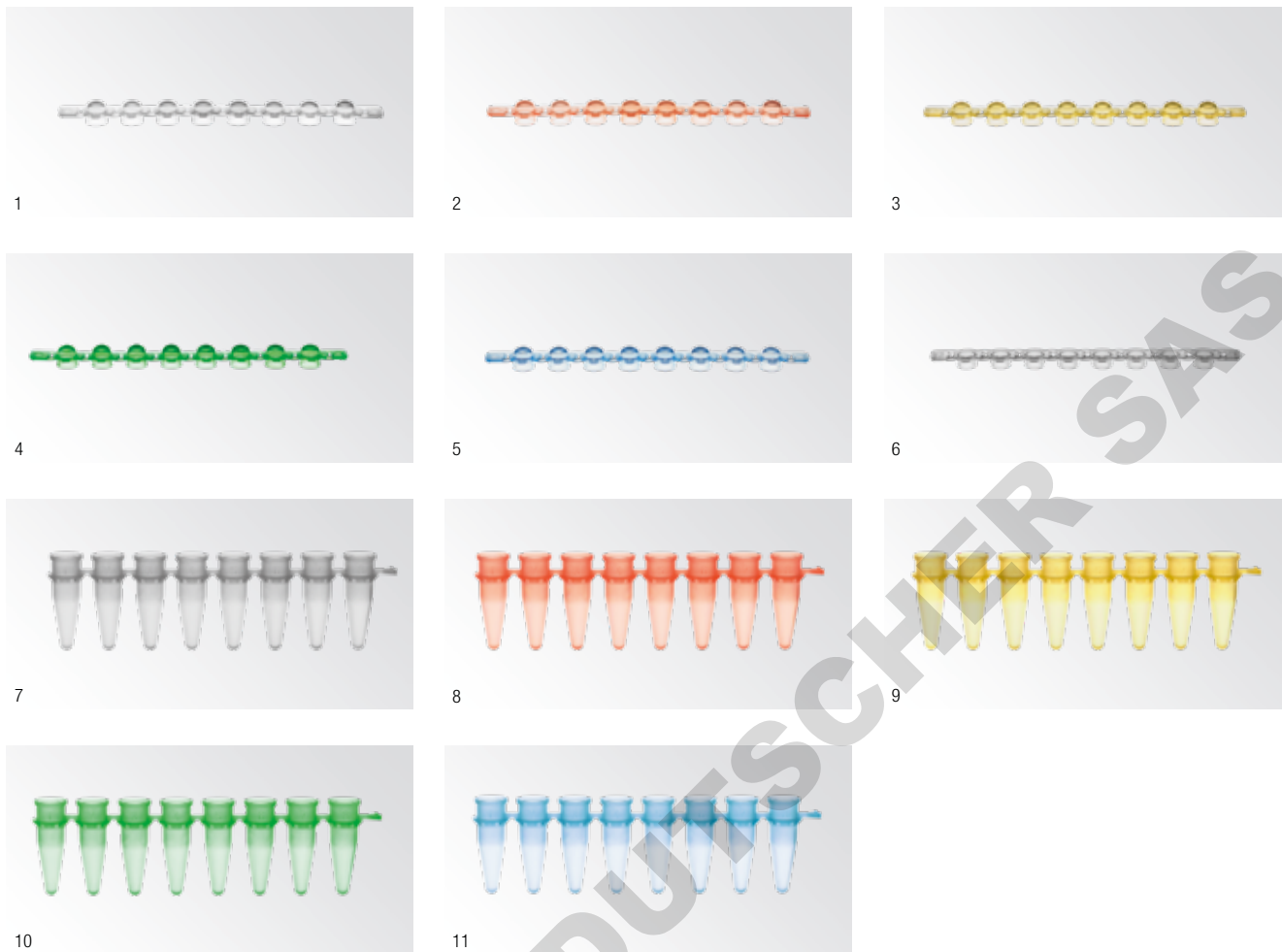
Single PCR Tubes



Product Description	Material	Color	Quantity	Order No.	Image No.
PCR Single Tube 0.2 ml	PP	clear	5'000 – 5 boxes of 1'000	96.09852.9.01	1
PCR Single Tube 0.2 ml	PP	rose	5'000 – 5 boxes of 1'000	96.09852.2.01	2
PCR Single Tube 0.2 ml	PP	yellow	5'000 – 5 boxes of 1'000	96.09852.4.01	3
PCR Single Tube 0.2 ml	PP	green	5'000 – 5 boxes of 1'000	96.09852.5.01	4
PCR Single Tube 0.2 ml	PP	blue	5'000 – 5 boxes of 1'000	96.09852.6.01	5
PCR Single Tube 0.5 ml	PP	clear	10'000 – 10 boxes of 1'000	96.10385.9.01	6



Strip of 8 PCR Tubes 0.2 ml, with suitable PCR Cap Strip



Product Description	Material	Color	Quantity	Order No.	Image No.
PCR Strip of 8 domed Caps	PP	clear	125	96.10580.9.01	1
PCR Strip of 8 domed Caps	PP	rose	125	96.10580.2.01	2
PCR Strip of 8 domed Caps	PP	yellow	125	96.10580.4.01	3
PCR Strip of 8 domed Caps	PP	green	125	96.10580.5.01	4
PCR Strip of 8 domed Caps	PP	blue	125	96.10580.6.01	5
PCR Strip of 8 flat Caps	PP	clear	125	96.10570.9.01	6
PCR Strip of 8 Tubes	PP	clear	125	96.10560.9.01	7
PCR Strip of 8 Tubes	PP	rose	125	96.10560.2.01	8
PCR Strip of 8 Tubes	PP	yellow	125	96.10560.4.01	9
PCR Strip of 8 Tubes	PP	green	125	96.10560.5.01	10
PCR Strip of 8 Tubes	PP	blue	125	96.10560.6.01	11

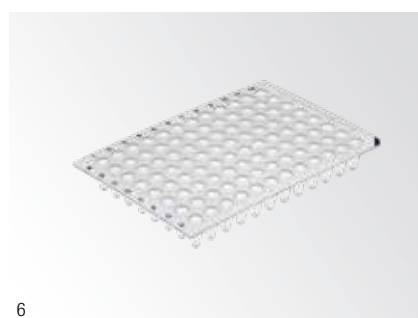
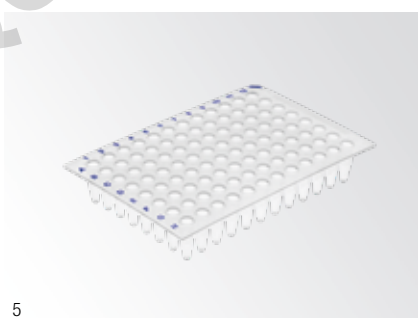
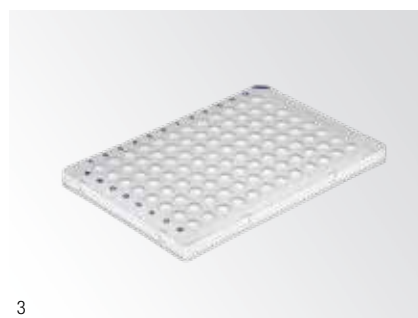
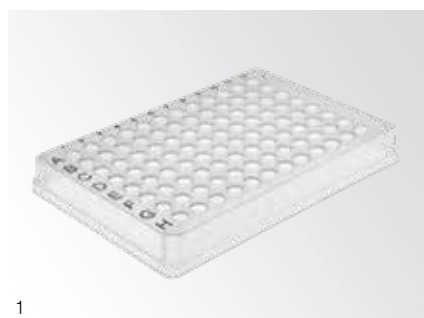
Strip of 12 PCR Tubes 0.2 ml, with suitable PCR Cap Strip



Product Description	Material	Color	Quantity	Order No.	Image No.
PCR Strip of 12 domed Caps	PP	clear	125	96.10815.9.01	1
PCR Strip of 12 Tubes	PP	clear	125	96.10814.9.01	2

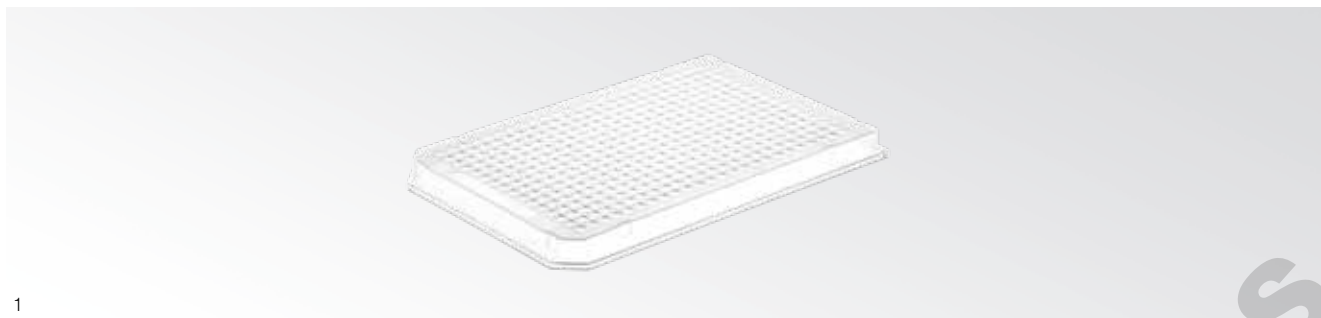
PCR Plates *low binding DNA surface*

96-Well PCR Plate 0.15 ml/0.2 ml Well volume



Product Description	Material	Color	Quantity	Order No.	Image No.
96-Well PCR Plate, low profile, full skirt 0.15 ml	PP	clear	50 – 5 bags of 10	96.11203.9.01	1
96-Well PCR Plate, standard profile, half skirt 0.2 ml	PP	clear	50 – 10 bags of 5	96.11204.9.01	2
96-Well PCR Plate, low profile, half skirt 0.15 ml	PP	clear	50 – 10 bags of 5	96.11205.9.01	3
96-Well PCR Plate, low profile, half skirt, elevated rim 0.15 ml	PP	clear	50 – 10 bags of 5	96.11206.9.01	4
96-Well PCR Plate, standard profile, no skirt 0.2 ml	PP	clear	50 – 10 bags of 5	96.11207.9.01	5
96-Well PCR Plate, low profile, no skirt 0.15 ml	PP	clear	50 – 10 bags of 5	96.11208.9.01	6

384-Well PCR Plate 40 µl Well volume/25 µl sample volume

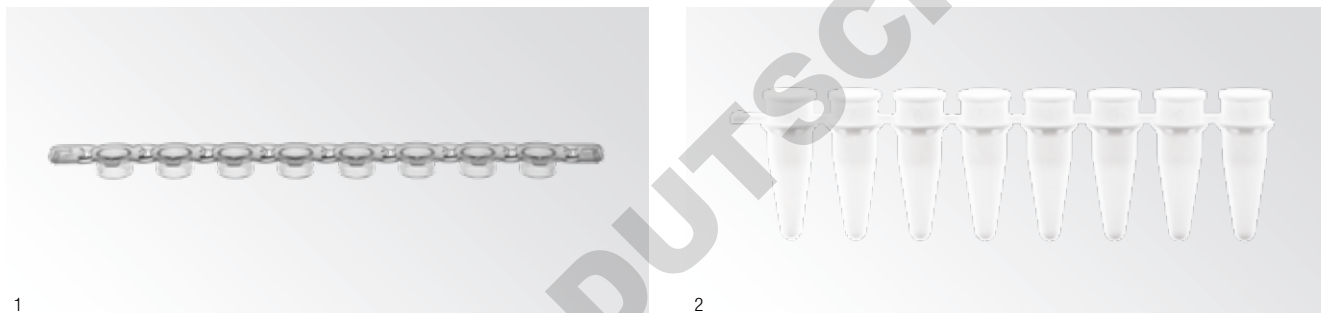


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Product Description	Material	Color	Quantity	Order No.	Image No.
384-Well PCR Plate, full skirt	PP	clear	50 – 5 bags of 10	96.09974.9.01	1

qPCR Tubes (white) *low binding DNA surface*

Strip of 8 qPCR Tubes 0.2 ml, with suitable PCR Cap Strip



1

2

Product Description	Material	Color	Quantity	Order No.	Image No.
PCR Strip of 8 flat Caps	PP	clear	125	96.10570.9.01	1
qPCR Strip of 8 Tubes	PP	white	125	96.10820.9.01	2

qPCR Plates (white) *low binding DNA surface*

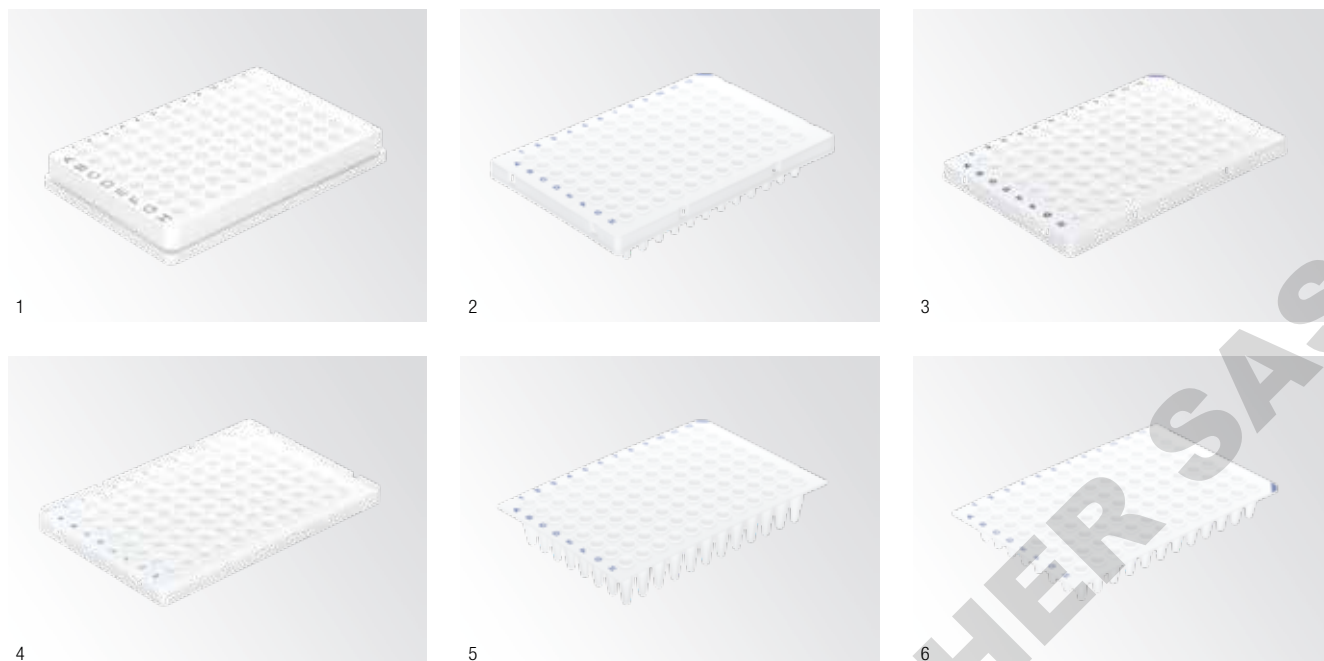
384-Well qPCR Plate 40 µl Well volume/25 µl sample volume, suitable for Roche® LightCycler® 480



1

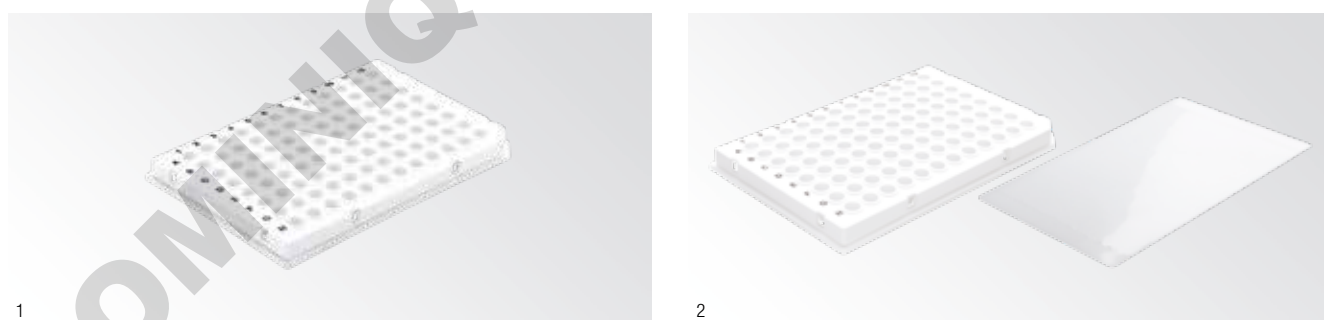
Product Description	Material	Color	Quantity	Order No.	Image No.
384-Well qPCR Plate, full skirt	PP	white	50 – 5 bags of 10	96.10180.9.01	1

96-Well qPCR Plate (white) 0.15/0.2 ml Well volume



Product Description	Material	Color	Quantity	Order No.	Image No.
96-Well qPCR Plate, low profile, full skirt 0.15 ml	PP	white	50 – 5 bags of 10	96.11197.9.01	1
96-Well qPCR Plate, standard profile, half skirt 0.2 ml	PP	white	50 – 10 bags of 5	96.11198.9.01	2
96-Well qPCR Plate, low profile, half skirt 0.15 ml	PP	white	50 – 10 bags of 5	96.11199.9.01	3
96-Well qPCR Plate, low profile, half skirt, elevated rim 0.15 ml	PP	white	50 – 10 bags of 5	96.11200.9.01	4
96-Well qPCR Plate, standard profile, no skirt 0.2 ml	PP	white	50 – 10 bags of 5	96.11201.9.01	5
96-Well qPCR Plate, low profile, no skirt 0.15 ml	PP	white	50 – 10 bags of 5	96.11202.9.01	6

96-Well qPCR Plate 0.15 ml Well volume, suitable for Roche® LightCycler® 480



Product Description	Material	Color	Quantity	Order No.	Image No.
96-Well qPCR Plate, low profile, half skirt	PP	white	50 – 5 bags of 10	96.10867.9.01	1
96-Well qPCR Plate, low profile, half skirt, with compatible self-adhesive sealing foil	PP	white	50 – 5 bags of 10	96.10868.9.01	2

Sealing Foil for all PCR & qPCR Plates *self-adhesive*

- ▶ Protects samples against contamination during assay and storage
- ▶ Pressure activated micro-encapsulated adhesive prevents sample contact
- ▶ Optically optimized for real-time PCR measurements



1

Product Description	Material	Application	Quantity	Order No.	Image No.
Single Foil high transparent	PET	For all plates Temperature range -40°C to +120°C ideal for use in thermal cyclers with heated lids	100	96.09597.9.01	1







CleanRoom®
PURE



LoTrace®
DNA

Deep Well Plates

General Characteristics

TreffLab offers top quality Swiss made Deep Well Plates for general sample preparation and storage applications. Excellent physical and microbiological properties provide superb application results.

All TreffLab Deep Well Plates CleanRoom Pure® feature the following characteristics:

- › 100% virgin polymer only, providing high chemical quality, no additives
- › Microbiologically controlled production in cleanrooms class 8, ISO 14644-1
- › Free of RNase, DNase, human DNA, endotoxins, PCR inhibitors and ATP
- › 100% fully automated leak-tightness tested
- › Permanent flatness and wall thickness tested
- › Round bottom wells (U)
- › ANSI/SLAS 2004 standard for robotic handling
- › Fits magnetic separation devices
- › Alphanumerical grid
- › Ready to Use (CleanRoom Pure®)
- › Withstand a temperature range from approx.
PP: -80°C to 121°C (autoclaving 20 minutes, 100% humidity)
according to DIN EN 285
PS: -20°C to 60°C
- › Withstand centrifugal g forces up to 6'000 RCF when used together with TreffLab Centrifuge Mats

All analyses have been carried out by an independent Swiss laboratory, accredited according to ISO/IEC 17025, or by the quality department at Nolato Treff AG. Corresponding data sheets are available on request.

LoTrace® DNA quality features the following additional characteristics:

- › Low binding DNA surface
- › Analyses of surface quality for each production lot
- › Analysis carried out by independent Swiss laboratory accredited ISO/IEE17025 for real-time PCR
- › CleanRoom Pure® production conditions
- › Ready for low content DNA sample preparation/ assay

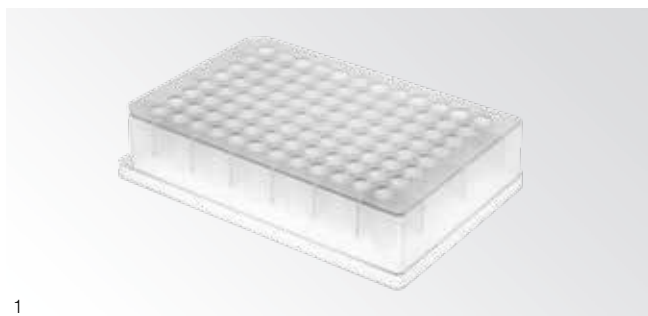
* Centrifugal Forces

TreffLab 0.5 ml, 1.2 ml and 2.2 ml Deep Well Plates, PP or PS, have been developed to serve as «Sample preparation, assay and storage vessel» primarily. All Nolato Treff DWP are suitable for centrifugal applications with the following limits:

- A) Using TreffLab Centrifugal Mat TreffLab Deep Well Plates withstand centrifugal g forces up to 6'000 RCF.
- B) When no TreffLab® Centrifugal Mat is used, Nolato Treff AG recommends that a centrifugal g force > 2000 RCF not be surpassed.

However, Nolato Treff will not guarantee any centrifugal stability as since compliance with critical physical parameters are mandatory. In order to achieve such stability, i.e. proper counterbalance (> 0.1 gram), appropriate centrifugal swing plates, proper DWP positioning at swing plate, stress reduction of plate bottom by use of flexible support mat between DWP and swing plate is required. The homogeneity of DWP vial filling (ml) and the total sample weight per vial (g) within the 96 plate is also important, as well as a correct centrifugal operation.

Deep Well Plate 0.5 ml *CleanRoom Pure*[®]



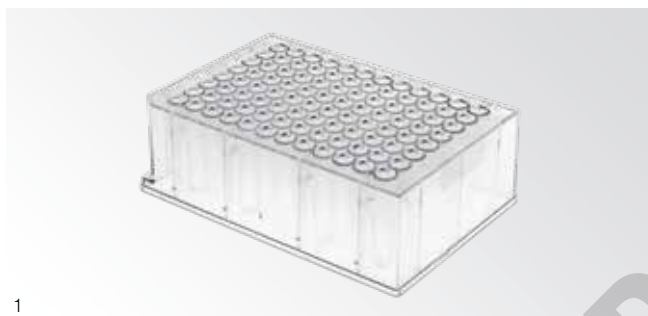
1



Detail raised rim

Product Description	Material	Type	Quantity	Order No.	Image No.
Deep Well Plate 0.5 ml	PP	raised rim, non sterile	56 – 8 packs of 7	96.09851.9.01	1
Deep Well Plate 0.5 ml	PP	raised rim, sterile	56 – 8 packs of 7	96.09965.9.01	1

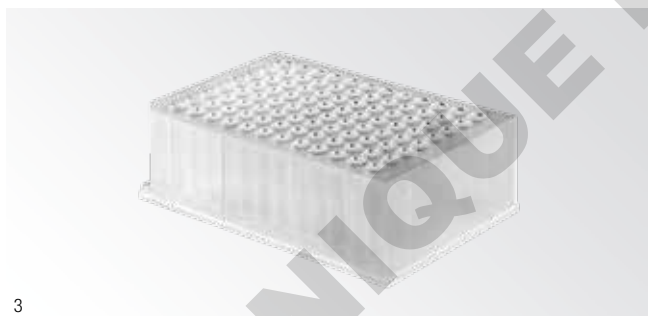
Deep Well Plate 1.2 ml *CleanRoom Pure*[®]



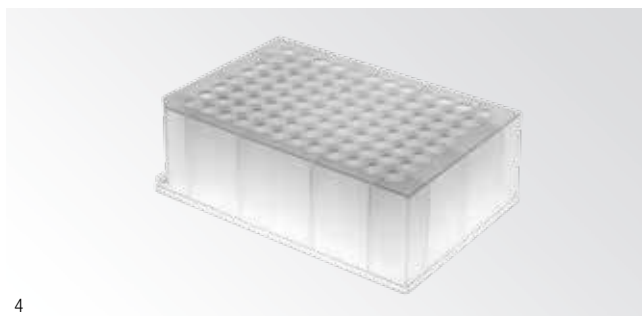
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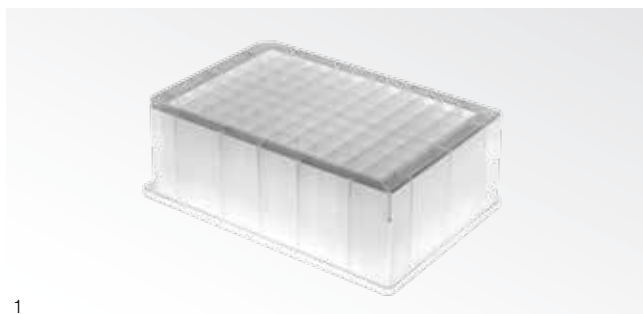
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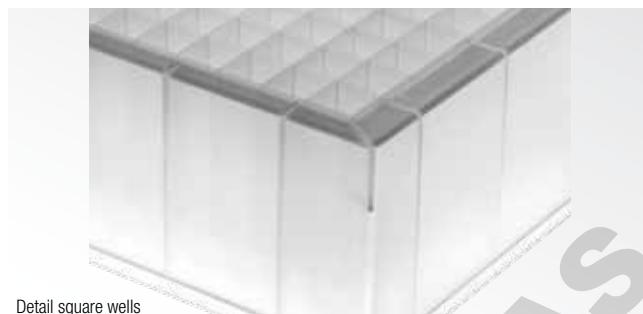
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Product Description	Material	Type	Quantity	Order No.	Image No.
Deep Well Plate 1.2 ml	PS	non sterile	32 – 8 packs of 4	96.08564.9.01	1
Deep Well Plate 1.2 ml	PS	sterile	32 – 8 packs of 4	96.08882.9.01	1
Deep Well Plate 1.2 ml	PP	non sterile	32 – 8 packs of 4	96.08996.9.01	2
Deep Well Plate 1.2 ml	PP	sterile	32 – 8 packs of 4	96.09118.9.01	2
Deep Well Plate 1.2 ml	PS	non sterile, raised rim	32 – 8 packs of 4	96.10841.9.01	3
Deep Well Plate 1.2 ml	PS	sterile, raised rim	32 – 8 packs of 4	96.10851.9.01	3
Deep Well Plate 1.2 ml	PP	non sterile, raised rim	32 – 8 packs of 4	96.10842.9.01	4
Deep Well Plate 1.2 ml	PP	sterile, raised rim	32 – 8 packs of 4	96.10852.9.01	4

Deep Well Plate 2.2 ml *CleanRoom Pure*[®]



1

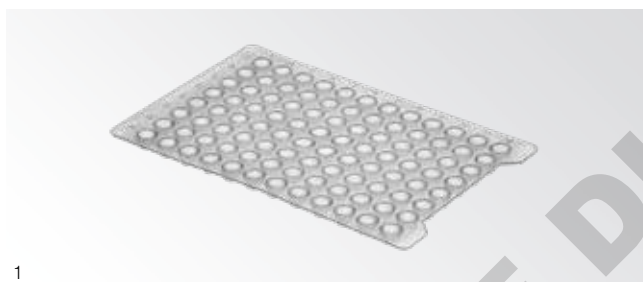


Detail square wells

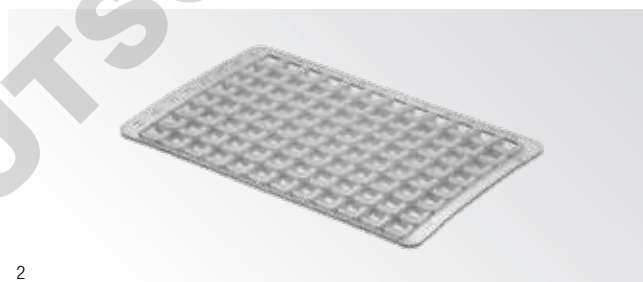
Product Description	Material	Type	Quantity	Order No.	Image No.
Deep Well Plate 2.2 ml	PP	non sterile	32 – 8 packs of 4	96.09799.9.01	1
Deep Well Plate 2.2 ml	PP	sterile	32 – 8 packs of 4	96.09971.9.01	1

Mats for Deep Well Plates

- › Prevents the evaporation of water and solvents from samples
- › Protects samples against contamination
- › Temperature range -20°C to +55°C



1

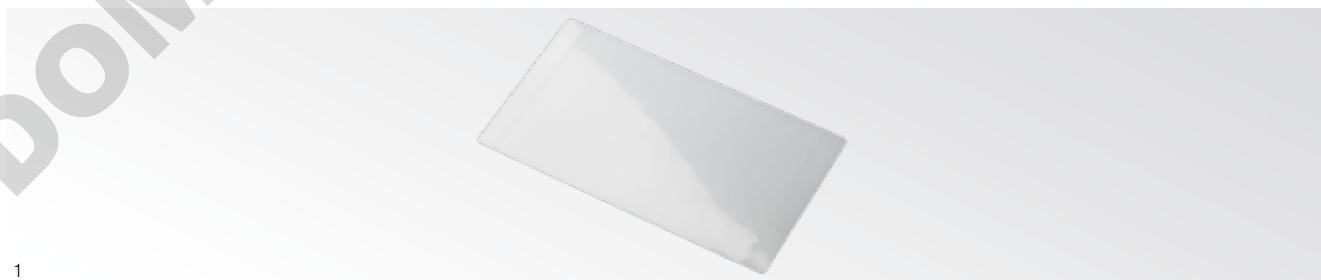


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Product Description	Material	Fits Deep Well Plates	Quantity	Order No.	Image No.
Mat for 96-Well Plates	TPE	0.5 ml and 1.2 ml	50 – 5 bags of 10	96.09711.9.01	1
Mat for 96-Well Plates	EVA	2.2 ml	50 – 5 bags of 10	96.09537.9.01	2

Sealing Foil for Deep Well Plates *self-adhesive*

- › Protects samples against contamination during assay and storage
- › Pressure activated micro-encapsulated adhesive prevents sample contact



1

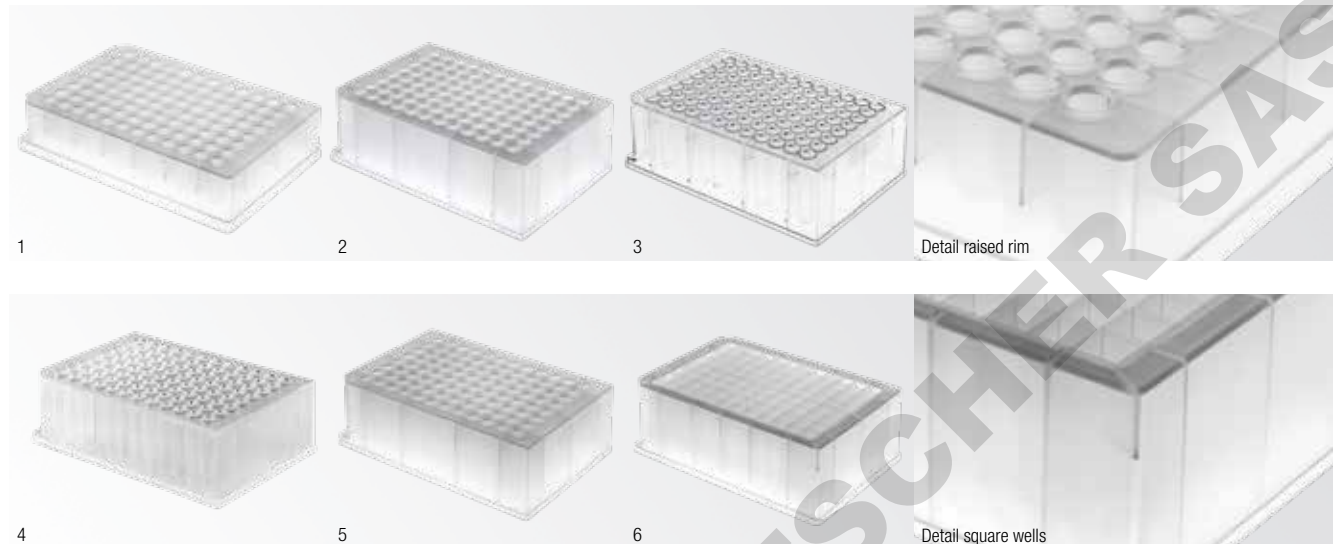
Product Description	Material	Application	Quantity	Order No.	Image No.
Single Foil high transparent	PET	For all plates Temperature range -40°C to +120°C	100	96.09597.9.01	1

LoTrace® DNA Deep Well Plates *low binding DNA surface*

- ▶ Low binding DNA surface
- ▶ Analyses of surface quality for each production lot
- ▶ Analysis by independent Swiss laboratory accredited ISO/IEE17025 for real-time PCR
- ▶ Ready for low content DNA sample preparation/ assay
- ▶ CleanRoom Pure® production conditions



Never Lose Your Valuable DNA Trace Sample during Sample Preparation



Product Description	Material	Description	Quantity	Order No.	Image No.
Deep Well Plate LoTrace® DNA 0.5 ml	PP	raised rim	56 – 8 packs of 4	96.09851.9.04	1
Deep Well Plate LoTrace® DNA 1.2 ml	PP	standard	32 – 8 packs of 4	96.08996.9.04	2
Deep Well Plate LoTrace® DNA 1.2 ml	PP	raised rim	32 – 8 packs of 4	96.10842.9.04	3
Deep Well Plate LoTrace® DNA 1.2 ml	PS	standard	56 – 8 packs of 4	96.08564.9.04	4
Deep Well Plate LoTrace® DNA 1.2 ml	PS	raised rim	32 – 8 packs of 4	96.10841.9.04	5
Deep Well Plate LoTrace® DNA 2.0 ml	PP	standard	32 – 8 packs of 4	96.09799.9.04	6

Centrifugal Mats for Deep Well Plates

Field of application: TreffLab Mat mandatory for Deep Well Plate forces > 2'000 g* (*please see page 13)



Product Description	Material	Application	Quantity	Order No.	Image No.
Centrifugal Mat 8 mm	Rubber	for 0.5 ml DWP	10	96.11680.9.01	1
Centrifugal Mat 4 mm	Rubber	for 1.2 & 2.2 ml DWP	10	96.11680.9.02	2





DOMINIQUE DUTSCHER SAS



CleanRoom®
PURE

Pipettes & Slim-Line Pipette Tips

General Characteristics – Pipettes

Transferpette S offers maximum versatility and optimal quality for the whole volume range. Single Channel Pipettes: 17 models type variable and fix with a volume range of 0.1 µl - 10 ml are available. Multi-Channel Pipettes: 10 models with a volume range of 0.5-300 µl are available.

Major Quality Characteristics of Transferpette are

- ▶ Completely autoclavable at 121°C (20 min)
- ▶ Large, central pipetting button allows a steady, jerk free movement of the piston
- ▶ Pipetting button with separate ejection function
- ▶ True one-hand operation. Volume setting for both right- and left-handers, even with gloves
- ▶ The volume-change protection prevents unintended volume adjustment
- ▶ Pinpoint accuracy due to the four-digit volume display, allows the integrated magnifying glass to be easily read
- ▶ The Easy-Calibration technique allows a readjustment without special tools – changes to factory settings are clearly visible on the outside
- ▶ Short stroke of only 12.5 mm to reduce the risk of RSI (Repetitive Strain Injury)
- ▶ Corrosion resistant piston and ejector for durability
- ▶ Color code for easy tip selection
- ▶ Ready to Use (CleanRoom Pure®)

General Characteristics – Slim-Line Pipette Tips

TreffLab Slim-Line™ Pipette Tips, PP, are designed to achieve the highest level of precision, accuracy and reproducibility demanded by scientists for challenging assays and routine analysis. All products are free of DiHEMDA (di(2hydroxyethyl)methyl-dodecylammonium) and Oleamid (9-octadecenamid).

Major Quality Characteristics of Slim-Line™ Pipette Tips are

- ▶ Robust pipette tip with Slim-Line™ shape
- ▶ 100% virgin polymer only
- ▶ Microbiologically controlled production in clean room class 8, ISO 14644-1
- ▶ Extra smooth surface minimizes binding of samples to the wall
- ▶ Free of DNase/ RNase, human DNA, PCR inhibitors, endotoxins, ATP
- ▶ Suitable for use with all popular single and multi-channel market leading pipettes
- ▶ Autoclavable (20 minutes, 100% humidity) according to DIN EN 285
- ▶ Sterile pipette versions are sterilized with β-radiation according to ISO 11137 and AAMI guidelines. The sterility meets USP 29 and Ph. Eur. requirements SAL of 10⁻⁶ (β-radiation)
- ▶ Ready to Use (CleanRoom Pure®)

Major Quality Characteristics of SlimLine® Filters

- ▶ Additive free pure Polyethylene (PE) Filter
- ▶ Aerosol safe due to pore size and filter length
- ▶ Liquid safe due to pore size
- ▶ Sample recovery possible when accidentally in contact with filter due to non-swelling filter type (blow out or centrifuge filter tip)

Single Channel Transferpette® S

- ▶ The slim pipette shaft allows a pipetting in narrow vessels
- ▶ Due to the optimized standard design of the tip cone both TreffLab tips and competitors Tips can be used
- ▶ Transferpette S 0.1 - 1 µl shows the highest precision in molecular biology, especially when pipetting enzymes
- ▶ Items supplied: Transferpette S type, conformity certified with performance certificate, shelf/rack mount, tip samples, liquid handling brochure



Product Description	Volume	Order No.
Transferpette S Fix	10 µl	96.10686.08.0
Transferpette S Fix	20 µl	96.10686.16.0
Transferpette S Fix	25 µl	96.10686.20.0
Transferpette S Fix	50 µl	96.10686.28.0
Transferpette S Fix	100 µl	96.10686.38.0
Transferpette S Fix	200 µl	96.10686.44.0
Transferpette S Fix	500 µl	96.10686.54.0
Transferpette S Fix	1'000 µl	96.10686.62.0

Product Description	Volume	Order No.
Transferpette S	0.1 - 1 µl	96.10687.01.0
Transferpette S	0.1 - 2.5 µl	96.10687.69.0
Transferpette S	0.5 - 10 µl	96.10687.02.0
Transferpette S	2 - 20 µl	96.10687.03.0
Transferpette S	10 - 100 µl	96.10687.74.0
Transferpette S	20 - 200 µl	96.10687.78.0
Transferpette S	100 - 1'000 µl	96.10687.80.0
Transferpette S	0.5 - 5 ml	96.10687.82.0
Transferpette S	1 - 10 ml	96.10687.84.0

Multi Channel Transferpette® S

- ▶ The pipetting unit can be freely rotated by 360° in either direction
- ▶ Items supplied: Transferpette S-8F/S-12F, conformity certified with performance certificate, 1 Tip-Box filled with tips, 1 reagent reservoir, 1 shelf/rack mount, silicone grease, liquid handling brochure



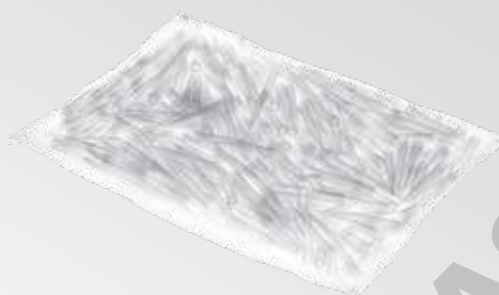
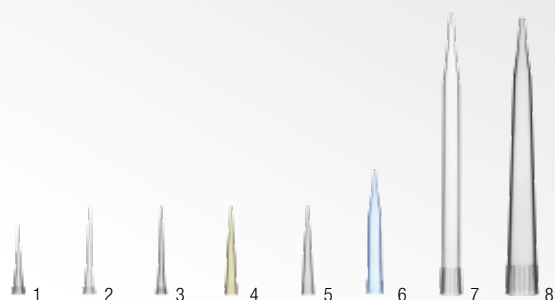
Product Description	Volume	Order No.
Transferpette S 8F	0.5 - 10 µl	96.10688.00.1
Transferpette S 8F	5 - 50 µl	96.10688.06.1
Transferpette S 8F	10 - 100 µl	96.10688.08.1
Transferpette S 8F	20 - 200 µl	96.10688.09.1
Transferpette S 8F	30 - 300 µl	96.10688.10.1

Product Description	Volume	Order No.
Transferpette S 12F	0.5 - 10 µl	96.10689.20.1
Transferpette S 12F	5 - 50 µl	96.10689.26.1
Transferpette S 12F	10 - 100 µl	96.10689.28.1
Transferpette S 12F	20 - 200 µl	96.10689.29.1
Transferpette S 12F	30 - 300 µl	96.10689.30.1

Available on request: Compatibility chart Treff Lab Pipette Tips / competitor pipettes

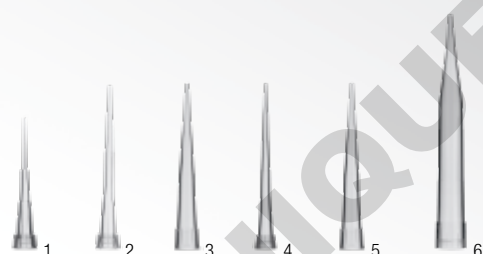
Slim-Line Tips *thin walled, graduated*

Bulk



Product Description	Material	Color	Quantity	Order No.	Image No.
0.1 - 20 µl 37 mm	PP	clear	10'000 – 1'000 tips/bag 10 bags/case	96.11176.9.01	1
0.5 - 20 µl 46 mm	PP	clear	10'000 – 1'000 tips/bag 10 bags/case	96.11177.9.01	2
1 - 50 µl 50 mm	PP	clear	10'000 – 1'000 tips/bag 10 bags/case	96.11178.9.01	3
2 - 200 µl 50 mm	PP	yellow	10'000 – 1'000 tips/bag 10 bags/case	96.11179.4.01	4
5 - 300 µl 53.5 mm	PP	clear	10'000 – 1'000 tips/bag 10 bags/case	96.11180.9.01	5
50 - 1'000 µl 69.7 mm	PP	blue	5'000 – 500 tips/bag 10 bags/case	96.11181.6.01	6
0.5 - 5 ml 160 mm	PP	clear	1'600 – 200 tips/bag 8 bags/case	96.08755.9.01	7
1 - 10 ml 156.5 mm	PP	clear	1'200 – 100 tips/bag 12 bags/case	96.10720.9.01	8

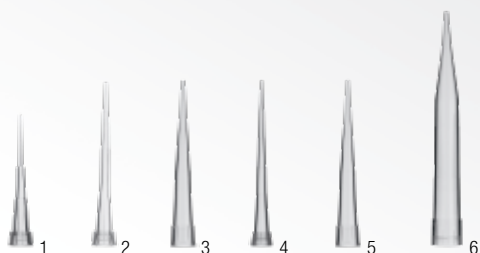
Tip-Box



Product Description	Material	Color	Type	Quantity	Order No.	Image No.
0.1 - 20 µl 37 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11182.9.01 96.11220.9.01	1
0.5 - 20 µl 46 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11183.9.01 96.11221.9.01	2
1 - 50 µl 50 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11184.9.01 96.11222.9.01	3
2 - 200 µl 50 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11185.9.01 96.11223.9.01	4
5 - 300 µl 53.5 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11186.9.01 96.11224.9.01	5
50 - 1'000 µl 69.7 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11187.9.01 96.11225.9.01	6

Slim-Line Tips *thin walled, graduated*

Refill Tip-Rack



Product Description	Material	Color	Type	Quantity	Order No.	Image No.
0.1 - 20 µl 37 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11233.9.01 96.11246.9.01	1
0.5 - 20 µl 46 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11234.9.01 96.11247.9.01	2
1 - 50 µl 50 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11235.9.01 96.11248.9.01	3
2 - 200 µl 50 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11236.9.01 96.11249.9.01	4
5 - 300 µl 53.5 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11237.9.01 96.11250.9.01	5
50 - 1'000 µl 69.7 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11238.9.01 96.11251.9.01	6

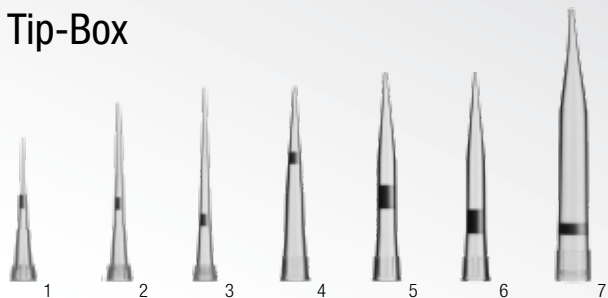
Refill Tip-Rack, stacked



Product Description	Material	Color	Type	Quantity	Order No.	Image No.
0.5 - 20 µl 46 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 2 x 5 boxes of 96	96.11259.9.01 96.11262.9.01	1
2 - 200 µl 50 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 2 x 5 boxes of 96	96.11260.9.01 96.11263.9.01	2
50 - 1'000 µl 69.7 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 2 x 5 boxes of 96	96.11261.9.01 96.11264.9.01	3

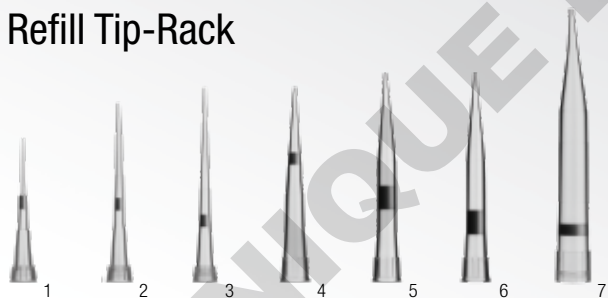
Slim-Line Filter Tips *thin walled, graduated*

Tip-Box



Product Description	Material	Color	Type	Quantity	Order No.	Image No.
0.1 - 1 µl 37 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11188.9.01 96.11226.9.01	1
0.5 - 10 µl 46 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11189.9.01 96.11227.9.01	2
1 - 20 µl 50 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11190.9.01 96.11228.9.01	3
2 - 20 µl 50 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11191.9.01 96.11229.9.01	4
5 - 100 µl 53.5 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11192.9.01 96.11230.9.01	5
5 - 200 µl 53.5 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11193.9.01 96.11231.9.01	6
50 - 1'000 µl 69.7 mm	PP	clear	CleanRoom Pure® add. sterilized	480 – 5 boxes of 96 960 – 10 boxes of 96	96.11194.9.01 96.11232.9.01	7

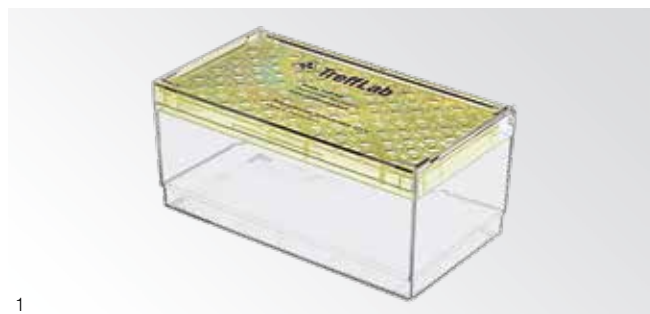
Refill Tip-Rack



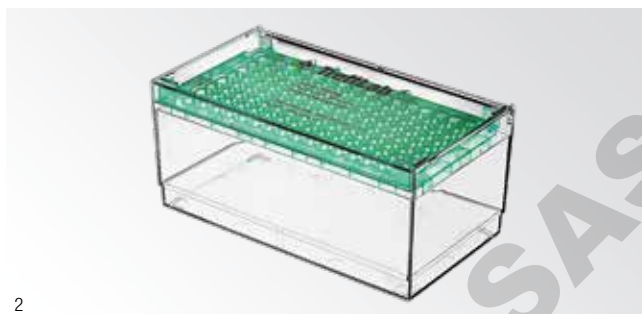
Product Description	Material	Color	Type	Quantity	Order No.	Image No.
0.1 - 1 µl 37 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11239.9.01 96.11252.9.01	1
0.5 - 10 µl 46 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11240.9.01 96.11253.9.01	2
1 - 20 µl 50 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11241.9.01 96.11254.9.01	3
2 - 20 µl 50 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11242.9.01 96.11255.9.01	4
5 - 100 µl 53.5 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11243.9.01 96.11256.9.01	5
5 - 200 µl 53.5 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11244.9.01 96.11257.9.01	6
50 - 1'000 µl 69.7 mm	PP	clear	CleanRoom Pure® add. sterilized	960 – 10 boxes of 96	96.11245.9.01 96.11258.9.01	7

Tip-Boxes Polycarbonate *for TreffLab Slim-Line Tips*

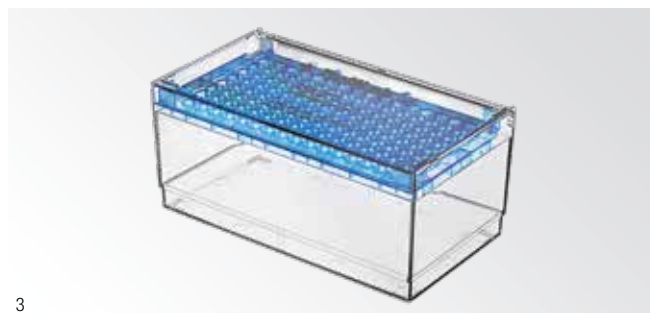
The transparent polycarbonate TreffLab Tip-Boxes are ideal to serve as pipette tip storage and protecting box for autoclaving tips at 121 °C. Due to its form stability during autoclaving, with its hinged lid and easy one hand opening, TreffLab Tip-Boxes are well accepted tools in modern liquid handling laboratories. For Single and Multi Channel Pipettes.



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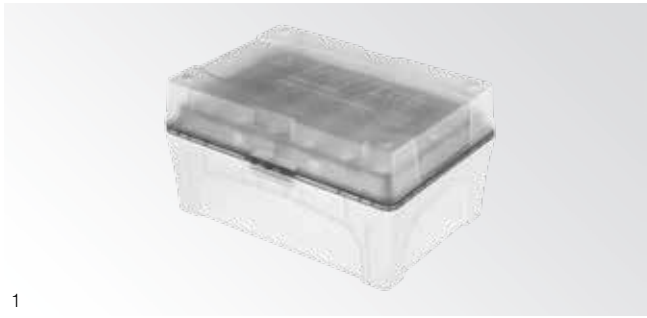
3



4

Product Description	Material	Color	Quantity	Order No.	Image No.
Tip-Box PC with empty rack for 128 Tips 200 µl For 200 µl Slim-Line Tips (96.11179.4.01)	PC	clear yellow rack	12 pcs	96.11487.9.01	1
Tip-Box PC with empty rack for 128 Tips 300 µl For 300 µl Slim-Line Tips (96.11180.9.01)	PC	clear green rack	12 pcs	96.11488.9.01	2
Tip-Box PC with empty rack for 128 Tips 1'000 µl For 1'000 µl Slim-Line Tips (96.11181.6.01)	PC	clear blue rack	12 pcs	96.11489.9.01	3
Storage Box For general storage purpose	PC	clear grey rack	12 pcs	96.11564.9.01	4

Tip-Boxes Polypropylene for TreffLab Slim-Line Tips



1



2



3

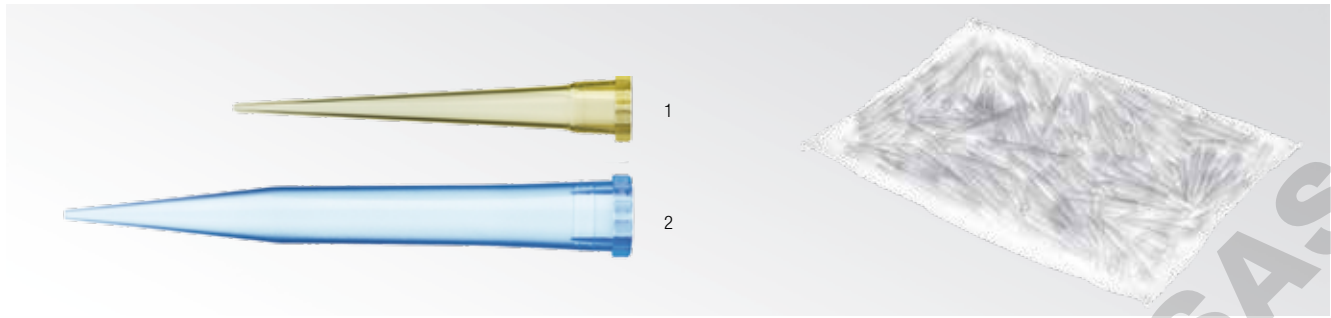


4

Product Description	Material	Color	Quantity	Order No.	Image No.
Tip-Box for 96 Tips 20 µl	PP	clear box grey rack	10 pcs	96.11277.9.01	1
Tip-Box for 96 Tips 200 µl	PP	clear box yellow rack	10 pcs	96.11278.9.01	2
Tip-Box for Tips 96 300 µl	PP	clear box green rack	10 pcs	96.11321.9.01	3
Tip-Box for Tips 96 1'000 µl	PP	clear box blue rack	10 pcs	96.11279.9.01	4

TreffLab Tips *rimmed*

Bulk



Product Description	Material	Color	Quantity	Order No.	Image No.
2 - 200 µl 49.7 mm rimmed	PP	yellow	30'000 – 1'000 tips/bag, 30 bags/case	96.01701.4.02	1
50 - 1'000 µl 70.4 mm rimmed	PP	blue	10'000 – 1'000 tips/bag, 10 bags/case	96.01702.6.02	2

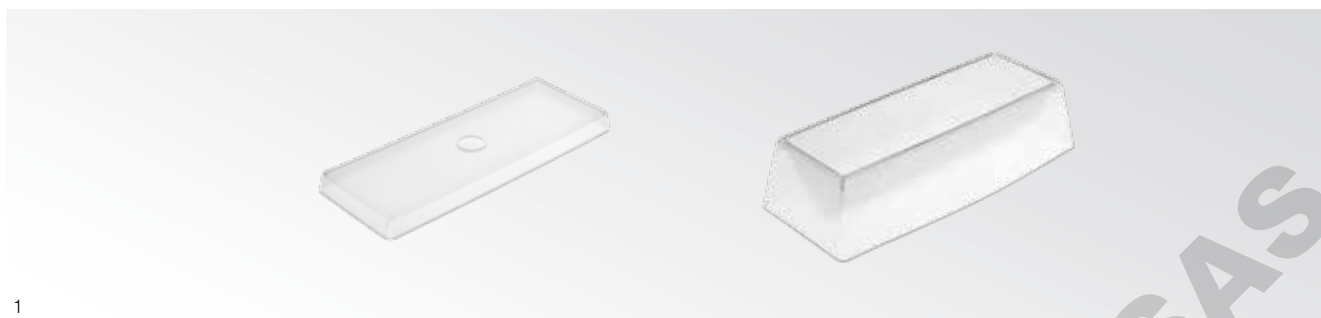
Tip-Boxes Polycarbonate for TreffLab Tips *rimmed*



Product Description	Material	Color	Quantity	Order No.	Image No.
Tip-Box PC with empty rack for 100 TreffLab Tips 200 µl, rimmed For 200 µl Treff Lab Tips rimmed (96.01701.4.02)	PC	clear box yellow rack	12 pcs	96.03773.9.01	1
Tip-Box PC with empty rack for 100 TreffLab Tips 1'000 µl, rimmed For 1'000 µl TreffLab Tips rimmed (96.01702.6.02)	PC	clear box blue rack	12 pcs	96.03780.9.01	2

Pipette Accessories

Reagent Reservoir



1

Product Description	Material	Color	Quantity	Order No.	Image No.
Reagent Reservoir 60 ml, with lid, non-sterile	PP	clear	10 pcs/bag	96.10710.01.0	1
Reagent Reservoir 50 ml, non-sterile	PP	clear	100 pcs/bag	96.04796.9.01	1

Pipette Stand / Shelf Holder



1

2

Product Description	Color	Quantity	Order No.	Image No.
Table Stand for up to 6 Transferpette® S	grey	1 pcs	96.10703.01.0	1
Table Stand for 1 Multi Channel Transferpette® S	grey	1 pcs	96.10703.02.0	–
Shelf Holder for 1 Transferpette® S	dark blue	1 pcs	96.10704.02.0	2

Filter for 5 ml & 10 ml Transferpette® S

Field of application: Protects Transferpette® S against contamination of liquid and vapor.

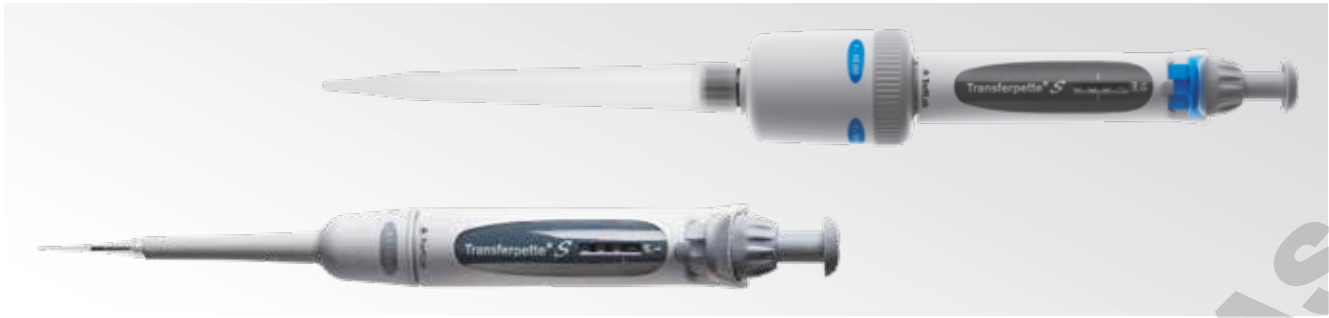


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Product Description	Material	Color	Quantity	Order No.	Image No.
Filter for 96.08755.9.01 5 ml	PE	white	25 pcs/bag	96.10705.01.0	1
Filter for 96.10720.9.01 10 ml	PE	white	25 pcs/bag	96.10705.02.0	1

Compatibility Table Pipette Tips – Pipette



Single Channel Transferpette S®										Maximum Volume	
1 µl	2.5 µl	10 µl	20 µl	25 µl	50 µl	100 µl	200 µl	1'000 µl	5 ml	10 ml	
•	• ²⁾	• ²⁾									
	•	•									
	• ²⁾	•									
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- 1)
Tips in bags are yellow or blue. Racked or stacked tips are clear and the carrier plate is yellow or blue.
- 2)
Calibration or adjustment may be necessary
- 3)
Filter for these tips are available separately
- 4)
Max. volume of tip is below max. volume of pipette

Multi Channel Transferpette S®					Pipette Tips
10 µl	50 µl	100 µl	200 µl	300 µl	
•					0.1 - 20 µl
•					0.5 - 20 µl
•					1 - 50 µl
	•	•	•	• ⁴⁾	2 - 200 µl ¹⁾
	•	•	•	•	5 - 300 µl
					50 - 1'000 µl ¹⁾
					0.5 - 5 ml ³⁾
					1 - 10 ml ³⁾
					0.1 - 1 µl
•					0.5 - 10 µl
•					1 - 20 µl
					2 - 20 µl
	•	•	• ⁴⁾	• ⁴⁾	5 - 100 µl
	•	•	•	• ⁴⁾	5 - 200 µl
					50 - 1'000 µl



Available on request: Compatibility chart TreffLab Pipette Tips/competitor pipettes





CleanRoom®
PURE



LoTrace®
DNA



LoTrace®
FORENSICS

AutoLys M Products

The AutoLys M Tube is designed for midscale semi-automated applications with 2D-ID traceability. It comes as a tube in tube concept and a TubeLifter tool to ensure processing of the 24 tubes at one time by a DNA Spin-Flow purification of lysed analyte. In combination with the TubeLifter tool it ensures a fast, contamination free and reliable workflow ideal for DNA extraction from critical traces.

General Characteristics – TreffLab AutoLys M Tube

Absolutely safe DNA extraction – even from large traces of source material (large swabs, cloth etc) – within one tube is guaranteed, thanks to:

- ▶ A special compact, wide design of the tube
- ▶ The close-fitting outer and inner tubes
- ▶ An inner membrane at the bottom of the inner tube combined with a screw cap

Major Quality Characteristics of AutoLys M Tube are

- ▶ The AutoLys M Tube is made of special virgin polypropylene resin providing high chemical resistance and excellent surface quality to ensure maximum DNA recovery for next step of DNA analysis
- ▶ The PTFE Membrane (30 µm pore size, 2 mm thickness) of the inner tube is hydrophobic, inert and chemically stable, well suited also for applications with organic solvents (e.g. acetonitrile), acids or alkalines
- ▶ For Spin-Flow applications with a working volume of 200 to 900 µl
- ▶ For heat incubations with lysis buffers up to 90°C
- ▶ AutoLys M Tubes withstand centrifugal g forces up to 3'000 RCF («Lift Lock» position, 500 µl, 10 min)
- ▶ Microbiologically controlled production in cleanrooms class 8, ISO 14644-1
- ▶ Free of RNase, DNase, DNA (<2 pg DNA), Endotoxines (<0.001 EU/ml), PCR Inhibitors (<10 copies) or ATP (<30 RUL)
- ▶ Ready to Use (CleanRoom Pure®)
- ▶ LoTrace® DNA)
- ▶ LoTrace® Forensics)

General Characteristics – TreffLab AutoLys M Tube, EO treated

- ▶ Treatment significantly reduces applied human DNA, RNase and DNase contaminants. EO fumigation has no impact on PCR Inhibitors or ATP (Study at company accredited ISO/IEC17025)
- ▶ Amount of applied human DNA is reduced > 3log10 fold by EO
- ▶ Optimized surface for forensic applications

EO (Ethylene Oxide)

LoTrace® Forensics quality features the following additional characteristics:

- ▶ Ethylene Oxide processed (ISO 18385, ISO 11135)
- ▶ Low binding DNA surface
- ▶ Analyses of surface quality for each production lot
- ▶ Analysis carried out by independent Swiss laboratory accredited ISO/IEE17025 for real-time PCR
- ▶ CleanRoom Pure® production conditions
- ▶ Ready for low content DNA sample preparation/ assay

All analyses have been carried out by an independent Swiss laboratory, accredited according to ISO/IEC 17025, or by the quality department at Nolato Treff AG. Corresponding data sheets are available on request.

LoTrace® Forensics AutoLys M Cap and Tubes *Ethylene Oxide treated*



Product Description	Material	Color	Quantity	Order No.	Image No.
AutoLys M Cap and Tube, 2D BC, EO sterile				96.11548.9.01	1
AutoLys M Cap	PP	blue	500 – 5 bags of 100		2
AutoLys M Tube, 2D barcode at bottom of tube	PP	clear	500 – 5 bags of 100		3
AutoLys M Cap and Tube, 2D BC, EO sterile				96.11549.9.01	1
AutoLys M Cap	PP	blue	250 – 10 bags of 25		
AutoLys M Tube, 2D barcode at bottom of tube	PP	clear	250 – 10 bags of 25		
AutoLys M Cap, EO sterile	PP	blue	1'000 – 10 bags of 100	96.11565.6.01	1
AutoLys M Tube, 2D BC, EO sterile	PP	clear	1'000 – 10 bags of 100	96.11579.9.01	1
2D barcode at bottom of tube					

AutoLys M Accessories

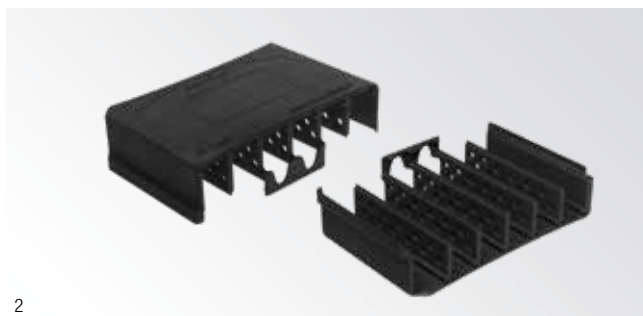
TubeLifter Kit

The black TubeLifter, to process 24 AutoLys M Tubes at one time, is a sophisticated industrial 3D print. It features ABS characteristics and a metal bottom plate to ensure it stands safely. The included locking lids ensure the safe processing of 24 AutoLys M Tubes at one time. For working in a regulated clean environment it is Deconex® cleanable and will not rub off.



TreffLab LockingLid for 24 AutoLys M Tubes

This industrial 3D print features ABS characteristics, which are used for the fixation of AutoLys M Tubes during centrifugation. For working in a regulated cleanroom environment it is Deconex® cleanable and will not rub off.



Product Description	Material	Color	Quantity	Order No.	Image No.
TubeLifter Kit for AutoLys M				96.11558.0.01	1
TubeLifter for 24 AutoLys M Tubes, Deconex® resistant	PA-HF SLS/ «ABS»	black	1 pcs		
LockingLid for AutoLys M Tubes, Deconex® resistant	with metal base plate	black	2 pcs		
Application brochure including video-link to application video on Youtube	PA-HF SLS/ «ABS»				
LockingLid for AutoLys M Tubes, Deconex® resistant	PA-HF SLS/ «ABS»	black	2 pcs	96.11557.0.01	2

Thermoblock for 24 AutoLys M Tubes

The Thermoblock for 24 AutoLys M Tubes is compatible with Eppendorf Thermomixer® comfort / ThermoStat plus™



1

AutoLys M Rack for 24 AutoLys M Tubes

This specially-designed rack is used to transport and centrifuge 24 AutoLys M Tubes at one time. In combination with LockingLid Nolato Treff AG recommends that a centrifugal force of more than 3000g not be surpassed.



2

Product Description	Material	Color	Quantity	Order No.	Image No.
Thermoblock for AutoLys M Tubes Thermoblock for 24 AutoLys M Tubes, Adapter for Eppendorf Thermomixer® comfort/ ThermoStat plus™, Starlab Mixer HC Assembly instruction	AL, PP	blue/grey	1 pcs	96.11560.0.01	1
Rack for 24 AutoLys M Tubes	PC	grey	20 – 2 bags of 10 20 – 4 bags of 5	96.11559.0.01 96.11559.0.02	2

Additional Accessories



1



2

Product Description	Material	Color	Quantity	Order No.	Image No.
Opening Pliers AutoLys M Opening Pliers, Manual Application instruction	metal and plastic handle	black/blue	1 pcs	96.11639.6.00	1
AutoLys M Starter Kit Thermoblock for 24 AutoLys M Tubes, Adapter for Eppendorf Thermomixer® comfort/ThermoStat plus™ and assembly instruction	AL, PP	blue/grey	1 pcs	96.11572.0.01	2
Rack for 24 AutoLys M Tubes	PC	grey	1 pcs		
AutoLys M Cap, EO sterile	PP	blue	100 – 1 bag of 100		
AutoLys M Tube, 2D BC, EO sterile 2D barcode at bottom of tube	PP	clear	100 – 1 bag of 100		

▶ **Good to Know for Forensic Analytics in Plastic Containers**

The use of plastic containers in DNA trace-analysis for forensic assays is challenging. Possible interactions between the sample and the plastic containers are well known. Nucleic acid can be lost through adhesion at the plastic surface as well as enzyme-free cleavage of small DNA through interaction with the plastic surface. Hence, the sample is lost for further analysis. It is extremely important to prevent plastic wall interaction when examining rare DNA sequences or smallest amounts of DNA traces. The use of conventional plastic containers can cause a significant loss of sensitivity in DNA analysis. It may result in a waste of time and the loss of DNA. In the case of criminal proceedings, this can seriously hinder the correct identification of a suspect.

▶ **AutoLys M tube-in-tube 2D marked «LoTrace® Forensics»**

Suited for different purification methods

▶ **User Examples**

AutoLys M – Magnetic Beads

- Put trace carrier into AutoLys M tube
- Ad 500 µl lysis buffer incl. guanidinium hydrochloride and Proteinase K
- Incubate 30 min at 56 °C
- Spin 2 min at 2000 g RCF
- Discard trace carrier with «basket»
- Lysate ready for DNA purification
- Ad 300 µl Isopropanol to lysate
- Ad 15 µl magnetic beads
- «Wash» twice
- Evaporate remaining buffer
- Release DNA with 100 µl elution buffer, 70 °C
- Separate magnetic beads from DNA solution
- DNA solution ready for next step

AutoLys M – Chelex

- Put trace on cotton swab into AutoLys M tube
- Add 170 µL Chelex Suspension plus 10 µl Proteinase K
- Incubate at 37 °C for 15 min
- Incubate at 85 °C for 5 min
- Spin 30 sec 1000g RCF followed by 3 min at 2000 g RCF
- Discard trace carrier with «basket»
- DNA Solution ready for next step

Autolys M – Proteinase K

- Put trace carrier into AutoLys M tube
- Ad 400 µl lysis buffer incl. 10 µl proteinase K
- Incubate «over night» at 56 °C
- Spin for 10 min at 4000 g RCF
- DNA Solution ready for next step



LoTrace®
FORENSICS

CleanRoom Pure®
No Additives



BioSICS

Beads / Che



DOMINIQUE DUTSCHE BAS



DOMINIQUE DUTSCHER SAS



CleanRoom®
PURE

Treff Vial HP

(Transport and Autosampler Vial)

The Treff Vial HP with septum cap is specially designed to meet required parameters of modern transport and autosampler vials.

General Characteristics – Treff Vial HP

Thanks to its special design and 2K material combination it is capable of withstanding up to 5 bar internal pressure and has a 2 bar resealing tightness after needle penetration of the septum. Its outstanding DMSO tightness makes the Treff Vial HP to an ideal storage and transport vessel for a wide range of research, development, quality control and production laboratories. Each vial features an individual unique 2D tube number to ensure retraceability at any time.

All TreffLab Vial HP feature the following characteristics:

- ▶ Outstanding dynamic transport tightness and resealing properties
- ▶ Autosampler and transport system approved
- ▶ 100% virgin medical-grade PP only, no additives, providing high chemical quality
- ▶ Microbiological controlled production in cleanrooms class 8, ISO 14644-1
- ▶ Free of RNase, DNase, human DNA, endotoxins, PCR inhibitors and ATP
- ▶ Capacity: up to 350 µl
- ▶ Up to 5 bar / 72.5 psi internal pressure tightness
- ▶ Resealing tightness after needle penetration of septum: 2 bar / 29 psi
- ▶ Temperature range: -80°C up to 100°C
- ▶ Ready to Use (CleanRoom Pure®)

Treff Vial HP 350 µl *transport and autosampler vial*

- ▶ Leak safe sample transport vessel for fully automated delivery systems
- ▶ Individual unique 2D barcode



1

Product Description	Material	Color	Quantity	Order No.	Image No.
Treff Vial HP 350 µl	PP	clear	5'000 10 bags of 500 Tubes 10 bags of 500 Caps	96.11418.9.00	1



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