



**COOLING
TECHNOLOGY**

CRYO TUBES

Cryo tubes from LABSOLUTE® are designed for the optimized storage and preservation of biological sample materials in the gas phase of liquid nitrogen or in deep-freeze devices. The cryo tubes are produced under clean room conditions as defined by ISO 14644-1 Class 7 and US FED STD 209E Class 10.000 from high-quality PP.

The screw caps made of HDPE with integrated sealing surface are innovative and especially practical. Leaks from the cryo tubes are therefore 100 % guaranteed not to happen - incorrectly positioned O-rings are a thing of the past.

The CE-certified cryo tubes are available in various sizes and versions, allowing you to choose between round and flat bases and between inner and outer threads, depending on your needs.

- Certified sterility through beta irradiation
- Free from human DNA, RNase, DNase, ATP and pyrogens
- Large labelling field
- Simple removal and secure storage: supplied in a handy dispenser box with 10 resealable pouches of 50 cryo tubes



PRODUCT PROPERTIES



Internal thread



External thread



Self-standing



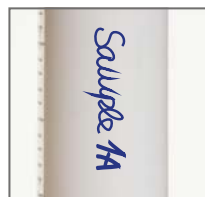
Round bottom



Graduation



Barcode for
unique
identification



Large
labelling field



Dispenser box

CRYO TUBES

Capacity ml	Description	Thread	Height mm	Ø mm	PK	Art. no.
1.2	Self-standing	External	4.02	14.10	500	7.696 650
1.2	Self-standing	Internal	4.27	12.60	500	7.696 651
2.0	Self-standing	External	4.56	14.10	500	7.696 652
2.0	Self-standing	Internal	4.82	12.60	500	7.696 653
2.0	Round bottom	External	4.45	14.10	500	7.696 657
2.0	Round bottom	Internal	4.70	12.60	500	7.696 658
4.0	Self-standing	External	7.36	14.10	500	7.696 654
5.0	Self-standing	External	8.76	14.10	500	7.696 655



2D CRYO TUBES

A 2D data matrix, which corresponds with the linear barcode on the vessel side, is integrated in the vessel bottom of the tubes. The dual identification enables secure tracking and facilitates handling of large numbers of samples. Tubes lock in cryo boxes and cryo racks.

Capacity ml	Thread	Height mm	Ø mm	PK	Art. no.
2.0	Internal	4.82	12.60	500	7.696 800
2.0	External	4.56	14.10	500	7.696 801
5.0	Internal	9.03	12.60	500	7.696 802
5.0	External	8.76	14.10	500	7.696 803



COLOURED CAP INSERTS

LABSOLUTE® cap inserts are very easy to insert into the screw caps and are used to colour-code your samples. Available in six different colours.

Colour	PK	Art. no.
Blue	100	7.696 644
White	100	7.696 645
Yellow	100	7.696 646
Purple	100	7.696 647
Red	100	7.696 648
Green	100	7.696 649



CRYO BOXES, CARDBOARD

The LABSOLUTE® cryo boxes are made of cold-resistant cardboard and well suited for cryogenic temperatures.

- Temperature-resistant up to -80 °C
- Lid included
- Delivery without grid insert

CRYO BOXES, STANDARD

The standard cryo boxes have a water repellent finish.



Width mm	Depth mm	Int. height mm	PK	Art. no.
67	134	50	10	7.696 670
136	136	50	10	7.696 671
136	136	100	10	7.696 672
133	133	50	10	7.696 675
133	133	75	10	7.696 676
133	133	100	10	7.696 677

CRYO BOXES, PLASTIC COATED

Due to a water-proof plastic coating these cryo boxes are especially durable.



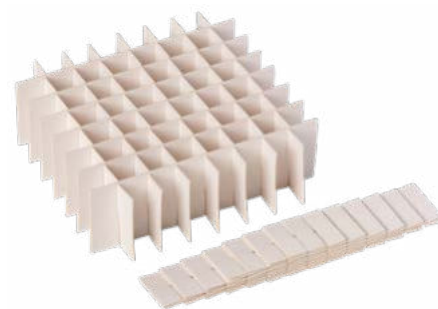
Width mm	Depth mm	Int. height mm	Colour	PK	Art. no.
133	133	32	White	1	7.696 820
133	133	50	White	1	7.696 821
133	133	50	Yellow	1	7.696 822
133	133	50	Green	1	7.696 823
133	133	75	White	1	7.696 824
133	133	100	White	1	7.696 825
136	136	32	White	1	7.696 830
136	136	50	White	1	7.696 831
136	136	50	Yellow	1	7.696 832
136	136	50	Green	1	7.696 833
136	136	75	White	1	7.696 834
136	136	100	White	1	7.696 835

GRID INSERTS FOR CRYO BOXES

Multiple formats and heights allow to combine individually.

The inserts are characterized by their freezing-resistant, water-repellent texture.

Array	For cryo box dimensions mm	Tube Ø mm	Height mm	PK	Art. no.
10 x 5	134 x 67	11.0	30	10	7.696 687
8 x 4	134 x 67	14.5	30	10	7.696 680
8 x 8	136 x 136	14.5	30	10	7.696 681
9 x 9	136 x 136	14.2	30	10	7.696 682
10 x 10	136 x 136	11.0	30	10	7.696 683
8 x 8	136 x 136	14.5	40	10	7.696 684
9 x 9	136 x 136	14.2	40	10	7.696 685
10 x 10	136 x 136	11.0	40	10	7.696 686
8 x 8	133 x 133	14.0	30	10	7.696 688
9 x 9	133 x 133	11.5	30	10	7.696 689
10 x 10	133 x 133	10.5	30	10	7.696 690
8 x 8	133 x 133	14.0	40	10	7.696 691
9 x 9	133 x 133	11.5	40	10	7.696 692
10 x 10	133 x 133	10.5	40	10	7.696 693



CRYO BOXES FOR 50 ML AND 15 ML CENTRIFUGE TUBES

The white cryo boxes from LABSOLUTE® are made of water-repellent and freezing-resistant cardboard and suitable for sample storage up to -80 °C.

- Suitable for 50 ml and 15 ml centrifuge tubes, respectively
- Temperature-resistant up to -80 °C
- Lid and grid insert included
- Dimensions (W x H x D): 148 x 130 x 148 mm

Array	Tube Ø mm	PK	Art. no.
4 x 4	30.0	5	7.696 678
6 x 6	17.0	5	7.696 679



CRYO BOXES, PC

LABSOLUTE® stackable cryo boxes in various designs, colours and sizes offer a handy and space-saving system for storing samples.

- Made of high-quality PC, suitable for temperatures between -196 °C and 121 °C
- Autoclavable at 121 °C for 20 minutes
- Stackable, lids and inserts at the top with 45°-angled corners for easier closing
- Transparent lid with white grid sectioning and numbering
- Various versions, sizes and colours available



For tubes ml	No. of tubes	Colour	Width mm	Height mm	Depth mm	PK	Art. no.
1.2/2.0	25	Blue	76	52	76	1	7.696 619
1.2/2.0	25	Red	76	52	76	1	7.696 620
1.2/2.0	25	Green	76	52	76	1	7.696 621
1.2/2.0	81	Blue	132	52	132	1	7.696 622
1.2/2.0	81	Red	132	52	132	1	7.696 623
1.2/2.0	81	Green	132	52	132	1	7.696 624
4.0/5.0	81	Blue	132	94	132	1	7.696 625
4.0/5.0	81	Red	132	94	132	1	7.696 626
4.0/5.0	81	Green	132	94	132	1	7.696 627
1.2/2.0*	100	Blue	132	52	132	1	7.696 634
1.2/2.0*	100	Red	132	52	132	1	7.696 635
1.2/2.0*	100	Green	132	52	132	1	7.696 636

* Only for tubes with internal thread

CRYO BOXES FOR 2D CRYO TUBES, PC

The boxes are designed for storage of 2D cryo tubes. Holes in the bottom allow scanning entire racks without taking tubes out of the box. A linear barcode on the side and a 2D data matrix on the bottom ensure an unambiguous assignment of each box and each tube.

- Boxes are made of PC and are suitable for temperatures between -196 °C and 121 °C
- Transparent lids with numbered grid allow quick and easy identification of samples



For tubes ml	No. of tubes	Colour	Width mm	Height mm	Depth mm	PK	Art. no.
2.0	81	Blue	132	50	132	1	7.696 810
2.0	81	Yellow	132	50	132	1	7.696 811
2.0	81	Red	132	50	132	1	7.696 812
2.0	81	Green	132	50	132	1	7.696 813
2.0*	100	White	132	50	132	1	7.696 818
5.0	81	Blue	132	94	132	1	7.696 814
5.0	81	Yellow	132	94	132	1	7.696 815
5.0	81	Red	132	94	132	1	7.696 816
5.0	81	Green	132	94	132	1	7.696 817
5.0*	100	White	132	94	132	1	7.696 819

* Only for tubes with internal thread

CRYO BOXES FOR 5 ML MICRO TUBES, PC

The LABSOLTUE® cryo box is especially suitable for the storage of 5 ml reaction vessels. The box is made of high quality PC and provides room for 25 tubes.

- Suitable for temperatures between -196 °C and 121 °C
- With black numbering of places



Description	PK	Art. no.
For 5 ml micro tubes	4	7.696 643

NUMBERING CARDS

Thanks to the useful numbering cards made of cardboard, you will never lose track of your samples. Each storing position is marked by a number and can thus be easily identified. Just place the numbering card on the bottom of the cryo box, partition insert on top (9 x 9 or 10 x 10), and your samples are clearly arranged. Fits in each cryo box with the dimensions (W x D) 133 x 133 mm or 136 x 136 mm.

Description	For grid insert	Positions	PK	Art. no.
Numbering cards	9 x 9	81	10	7.696 696
Numbering cards	10 x 10	100	10	7.696 697



CRYO LABELS

With the help of the different coloured LABSOLUTE® cryo labels, you can clearly mark your cryo boxes. At the same time, you can use the generous labelling field for writing on your boxes. Every packing unit includes 50 labels in five different colours: red, yellow, green, blue and violet.

- Temperature-resistant up to -150 °C on cryo boxes made of cardboard
- Delivery includes one permanent marker

Description	W x H mm	PK	Art. no.
Cryo labels	200 x 40	50	7.696 695



CRYO RACKS

Simple and useful: the LABSOLUTE® cryo racks permit one-handed opening and secure screw closure of tubes. This means that contamination can effectively be avoided.



- Dimensions (W x H x D): 215 x 25 x 100 mm
- Available in three different colours
- With rubber feet for secure stand

Colour	PK	Art. no.
Blue	1	7.696 637
Red	1	7.696 638
Green	1	7.696 639

MINI COOLERS

The LABSOLUTE® mini coolers offer effective cooling of reagents and solutions. Mini coolers can be used very conveniently directly on your workbench and convince with a controllable cooling process and reproducible results.

MINI COOLER 0 °C, PC

The red LABSOLUTE® mini cooler 0 °C made of robust PC is filled with a non-toxic cooling gel. Pre-cool for at least 24 hours at -5 °C to -10 °C before use.



- Maintains the temperature of 0 °C for at least 2 hours
- Suitable for 15 ml centrifuge tubes

Description	PK	Art. no.
For 12 tubes	1	7.696 220

MINI COOLERS -20 °C, PC

The yellow LABSOLUTE® mini coolers -20 °C made of robust PC are filled with a non-toxic cooling gel. Pre-cool for at least 24 hours at -20 °C to -25 °C before use.

- Maintains the temperature of -20 °C for at least 1 hour
- Suitable for micro tubes and cryo tubes



Description	Array	PK	Art. no.
For 0.5 - 1.5 ml micro tubes and cryo tubes	12	1	7.696 221
For 0.5 - 2 ml micro tubes and cryo tubes	20	1	7.696 222
For 5 ml micro tubes	12	1	7.696 219

FREEZING EQUIPMENT

LABSOLUTE® offers two effective options for cryopreservation. On the one hand, the LABSOLUTE® Precision Freeze ensures an even, particularly gentle freezing process while, on the other, LABSOLUTE® Quick Freeze ensures that samples are frozen quickly.

PRECISION FREEZE

Protection against freezing too quickly: the LABSOLUTE® Precision Freeze, made of PC and filled with 100 % isopropyl alcohol, guarantees a slow, reproducible freezing process of $-1\text{ }^{\circ}\text{C}/\text{min}$. The samples are protected against contact with the isopropyl alcohol thanks to the internal tube holders made of HDPE, and even the labelling of the samples remains undamaged. For thawing, the handy tube holder can also be used as a floating stand in the water bath when thawing the samples.

- Constant cooling rate of $-1\text{ }^{\circ}\text{C}/\text{min}$
- Stackable container with foam inlay
- Suitable for cryo tubes of sizes 1.2 ml to 2.0 ml
- Housing made of PC
- Lid and tube holder made of HDPE

Description	PK	Art. no.
For 18 tubes	1	7.696 223

QUICK FREEZE, PC

A handy alternative to the dry ice solvent bath: the LABSOLUTE® Quick Freeze was developed for the rapid cooling of samples - 1.5 ml H₂O, for example, needs only around 3 minutes to be cooled to $0\text{ }^{\circ}\text{C}$. Pre-cool for at least 24 hours at max. $-80\text{ }^{\circ}\text{C}$ before use.

- Rapid and controlled cooling of samples
- Suitable for test tubes and cryo tubes of sizes 0.5 ml to 2.0 ml
- Housing and lid made of PC
- Filled with non-toxic insulation solution

Description	PK	Art. no.
For 12 tubes*	1	7.696 224

* Delivery includes 12 adapters for converting the 1.5 ml hole to 0.5 ml tubes

IDEAL FOR
FREEZING
CELLS



ICE BUCKETS, PUR



The red LABSOLUTE® ice buckets are made of polyurethane foam and ideal for the cooling of samples, solutions or cultures. The ice buckets have excellent insulating properties and are suitable for use with dry ice, water ice, brine and acetone.

- Extremely robust and light
- With lid

Capacity l	Width mm	Height mm	Depth mm	PK	Art. no.
2.5	283	130	283	1	7.696 225
4.5	280	185	280	1	7.696 226

COOLING PACK, REUSABLE



Th. Geyer's reusable cooling packs are very handy due to their dimensions (W x H x D) of only 168 x 24 x 85 mm and their weight of 260 g. Cooling packs can be used for all laboratory and transport applications. Packs are delivered filled and welded. Therefore, they can be used several times. The cooling packs can be ordered piecewise or in cartons of 50 pieces for larger requirements.

Description	PK	Art. no.
Cooling pack, reusable	1	7.696 210