

ratiolab[®]

disposables for sciences



2007 / 2008

Cryo-Products

The ratiolab® Product Range

For more than 30 years ratiolab® is developing in close co-operation with its customers professional solutions for the laboratory routine, the research and the development.

Our product range is structured in four applicational branches: Cryo Products for ultra-low temperature applications, Life Science for applications in the modern biological disciplines, Liquid Handling for the safe and precise handling of liquids and Lab Ware for general laboratory use.

The quality of our product range is certified according to DIN EN ISO 9001:2000 and guarantees the safe and practical application of ratiolab® products.



Your Questions are Our Future



We serve our customers and distributors world-wide with competent advice, a competitive product range, and excellent reliability. Our products are presented at the most important national and international exhibitions. Our laboratory distribution partners are regularly supported by individual trainings. Together with our partners we grow continuously, but we do not grow taller than they.

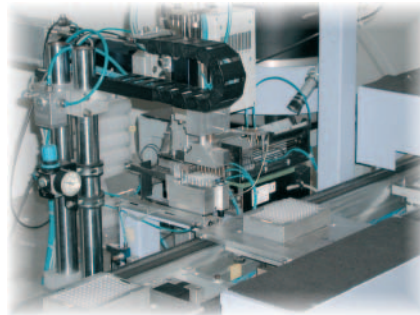
OEM and Private Label made by ratiolab®

Our experience and competence in producing demanding plastic disposables is your guarantee for our most competitive development and production of customized OEM and Private Label products. Ultra-modern CAD technology and the brilliant art of the toolmakers form the base for the short product development cycles and the premium quality. Cavity by cavity, bulk by bulk, product by product. We give any support regarding the product development, the production and the market conform make up and packaging.



Customized Make Up and Packaging

Highest flexibility is provided for the make up and packaging of the products. Fully automatic and semi automatic machines hardface cuvet racks, micro-tube racks or pipet tip racks and fill up bulkware. We will also find the optimum solution for your customized product range. We will develop your robotic conform



packagings according to your demands on the product purity and even for small series we will customize the packaging of your products according to the different national demands.

Our remarkable high production and warehouse capacities guarantee delivery on schedule.

ratiolab® - Your Partner for Complete Solutions

When planning your product solution for tomorrow we will give you competent advice. Our team provides detailed answers to your questions regarding the product, a fast and flexible development process, a most professional high-tech production and delivery on schedule at really competitive terms.

Dear customers

Our ratiolab[®] product range is continuously growing and developing to provide the optimum tools for your modern laboratory methods and processes. The actual product range is now presented in our four new catalog editions, marked with the year 2007/2008 at the front page.

The new catalogs can also be downloaded from the world wide web: www.ratiolab.com in German and English language. If you like to continuously receive more information on new ratiolab[®] products in future please send us your request by mail.

No catalog will be able to answer the manifold of technical and applicational questions completely. Our employees will give you more detailed information on your specific questions. The ratiolab[®] team will also support you for special product solutions or individual applicational questions.

To a successful co-operation.

Your
Johannes Frauendörfer
Managing Director



Brief information:

Our catalogs are intended for informational purposes only. However errors might be possible. Please appreciate therefore that no claims can be derived from our information and advice. Technical details are subject to alteration without notice. Pictures are for illustration only. They may not necessarily correspond to the described product in every detail. Dimensions given without any mention of tolerances are approximate values. Registered trademarks are indicated with [®], we do not guarantee for correctness and completeness.

valid from 01/2007

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ratiolab® Cryo Boxes and Grid Inserts, Cardboard



ratiolab® Cryo Boxes, Cardboard

Format 136 x 136 mm

Ultra low temperature resistant cardboard.

- available with a water-repellent finish or with a water-resistant plastic coating
- for the sample storage even at ultra low temperatures
- highest flexibility: Cryo Boxes can be combined with different Grid Inserts
- Quantity per pack: 10 pcs.

**other sizes
available on request**

Height of Cryo Boxes	32 mm	50 mm	75 mm	100 mm	130 mm
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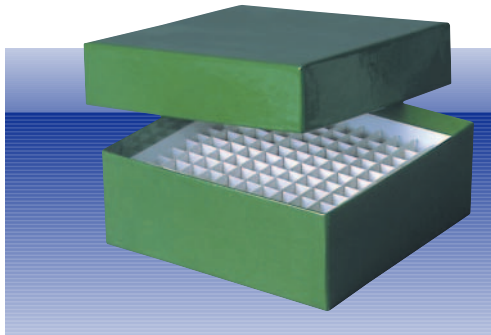
Color	Order-No.	Order-No.	Order-No.	Order-No.	Order-No.
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water-repellent, standard

white	51 41 321	51 41 501	51 41 751	51 41 001	51 41 131
blue	51 41 322	51 41 502	51 41 752	51 41 002	51 41 132
red	51 41 323	51 41 503	51 41 753	51 41 003	51 41 133
green	51 41 324	51 41 504	51 41 754	51 41 004	51 41 134
yellow	51 41 325	51 41 505	51 41 755	51 41 005	51 41 135

water-resistant plastic coating

white	51 42 321	51 42 501	51 42 751	51 42 001	51 42 131
blue	51 42 322	51 42 502	51 42 752	51 42 002	51 42 132
red	51 42 323	51 42 503	51 42 753	51 42 003	51 42 133
green	51 42 324	51 42 504	51 42 754	51 42 004	51 42 134
yellow	51 42 325	51 42 505	51 42 755	51 42 005	51 42 135



ratiolab® Grid Inserts for Cryo Boxes, Cardboard

Format 136 x 136 mm

Ultra low temperature resistant cardboard.

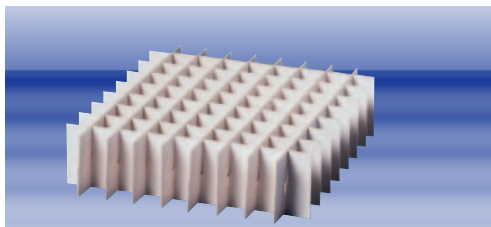
- water-repellent finish
- for the sample storage even at ultra low temperatures
- Quantity per pack: 10 pcs in a collapsible cardboard box.

**other sizes
available on request**

Height of Grids	25 mm	30 mm	40 mm	65 mm
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Grid	for tube dia.	Order-No.	Order-No.	Order-No.	Order-No.
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4 x 4	28.5 mm	51 20 210	51 20 211	51 20 212	51 20 213
5 x 5	23.5 mm	51 20 121	51 20 120	51 20 122	51 20 123
6 x 6	19.5 mm	51 20 131	51 20 130	51 20 132	51 20 133
7 x 7	16.5 mm	51 20 143	51 20 140	51 20 142	51 20 141
8 x 8	14.5 mm	51 20 152	51 20 150	51 20 151	51 20 153
9 x 9	12.0 mm	51 20 163	51 20 160	51 20 161	51 20 162
10 x 10	11.0 mm	51 20 173	51 20 170	51 20 172	51 20 171
12 x 12	9.0 mm	51 20 182	51 20 180	51 20 181	51 20 183
13 x 13	8.5 mm	51 20 190	51 20 193	51 20 191	51 20 192
14 x 14	7.5 mm	51 20 202	51 20 203	51 20 201	51 20 200
16 x 16	6.5 mm	51 20 221	51 20 222	51 20 223	51 20 224



ratiolab® Cryo Boxes and Grid Inserts, Cardboard

ratiolab® Cryo Boxes, Cardboard

Format 133 x 133 mm

other sizes
available on request

Ultra low temperature resistant cardboard.

- available with a water-repellent finish or with a water-resistant plastic coating
- for the sample storage even at ultra low temperatures
- highest flexibility: Cryo Boxes can be combined with different Grid Inserts
- Quantity per pack: 10 pcs

Height of Cryo Boxes	32 mm	50 mm	75 mm	100 mm	130 mm
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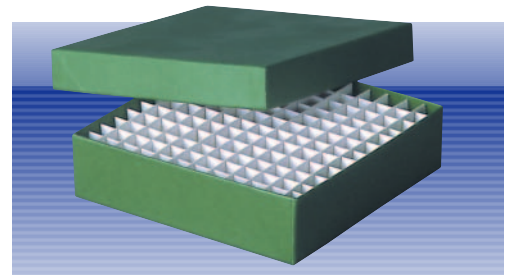
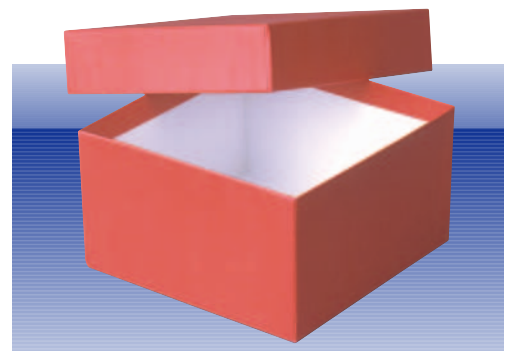
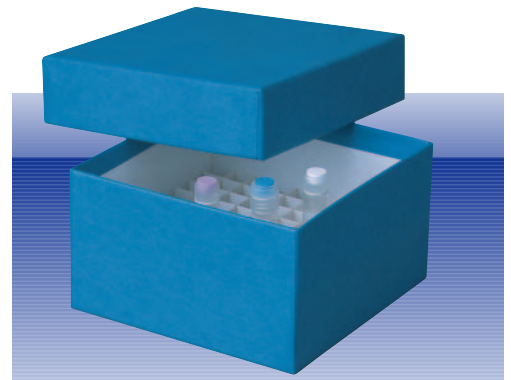
Color	Order-No.	Order-No.	Order-No.	Order-No.	Order-No.
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water-repellent, standard

white	51 31 321	51 31 501	51 31 751	51 31 001	51 31 131
blue	51 31 322	51 31 502	51 31 752	51 31 002	51 31 132
red	51 31 323	51 31 503	51 31 753	51 31 003	51 31 133
green	51 31 324	51 31 504	51 31 754	51 31 004	51 31 134
yellow	51 31 325	51 31 505	51 31 755	51 31 005	51 31 135

water-resistant plastic coating

white	51 32 321	51 32 501	51 32 751	51 32 001	51 32 131
blue	51 32 322	51 32 502	51 32 752	51 32 002	51 32 132
red	51 32 323	51 32 503	51 32 753	51 32 003	51 32 133
green	51 32 324	51 32 504	51 32 754	51 32 004	51 32 134
yellow	51 32 325	51 32 505	51 32 755	51 32 005	51 32 135



ratiolab® Grid Inserts for Cryo Boxes, Cardboard

Format 133 x 133 mm

other sizes
available on request

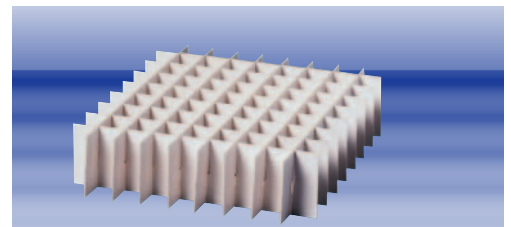
Ultra low temperature resistant cardboard.

- water-repellent finish
- for the sample storage even at ultra low temperatures
- Quantity per pack: 10 pcs in a collapsible cardboard box.

Height of Grids	25 mm	30 mm	40 mm	65 mm
-----------------	-------	-------	-------	-------

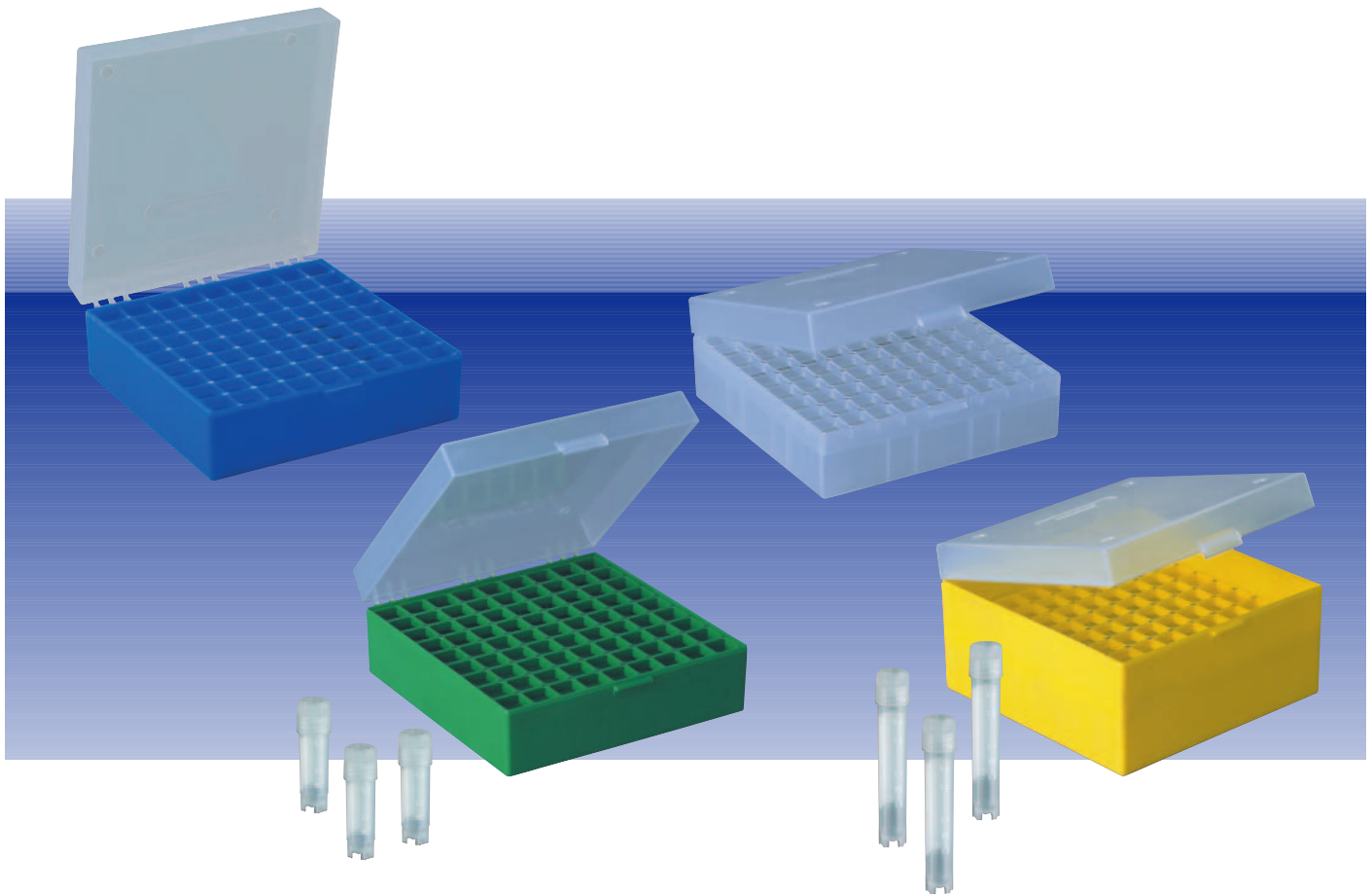
Grid	for tube dia.	Order-No.	Order-No.	Order-No.	Order-No.
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4 x 4	28.0 mm	51 20 214	51 20 215	51 20 216	51 20 217
5 x 5	23.0 mm	51 20 124	51 20 125	51 20 126	51 20 127
6 x 6	19.0 mm	51 20 134	51 20 135	51 20 136	51 20 137
7 x 7	16.0 mm	51 20 144	51 20 145	51 20 146	51 20 147
8 x 8	14.0 mm	51 20 154	51 20 155	51 20 156	51 20 157
9 x 9	11.5 mm	51 20 165	51 20 166	51 20 167	51 20 168
10 x 10	10.5 mm	51 20 175	51 20 174	51 20 176	51 20 177
12 x 12	8.5 mm	51 20 185	51 20 184	51 20 186	51 20 187
13 x 13	8.0 mm	51 20 194	51 20 195	51 20 196	51 20 197
14 x 14	7.0 mm	51 20 204	51 20 205	51 20 206	51 20 207
16 x 16	6.0 mm	51 20 225	51 20 226	51 20 227	51 20 228



Cryo Products

Cryo Boxes with Grids, PP



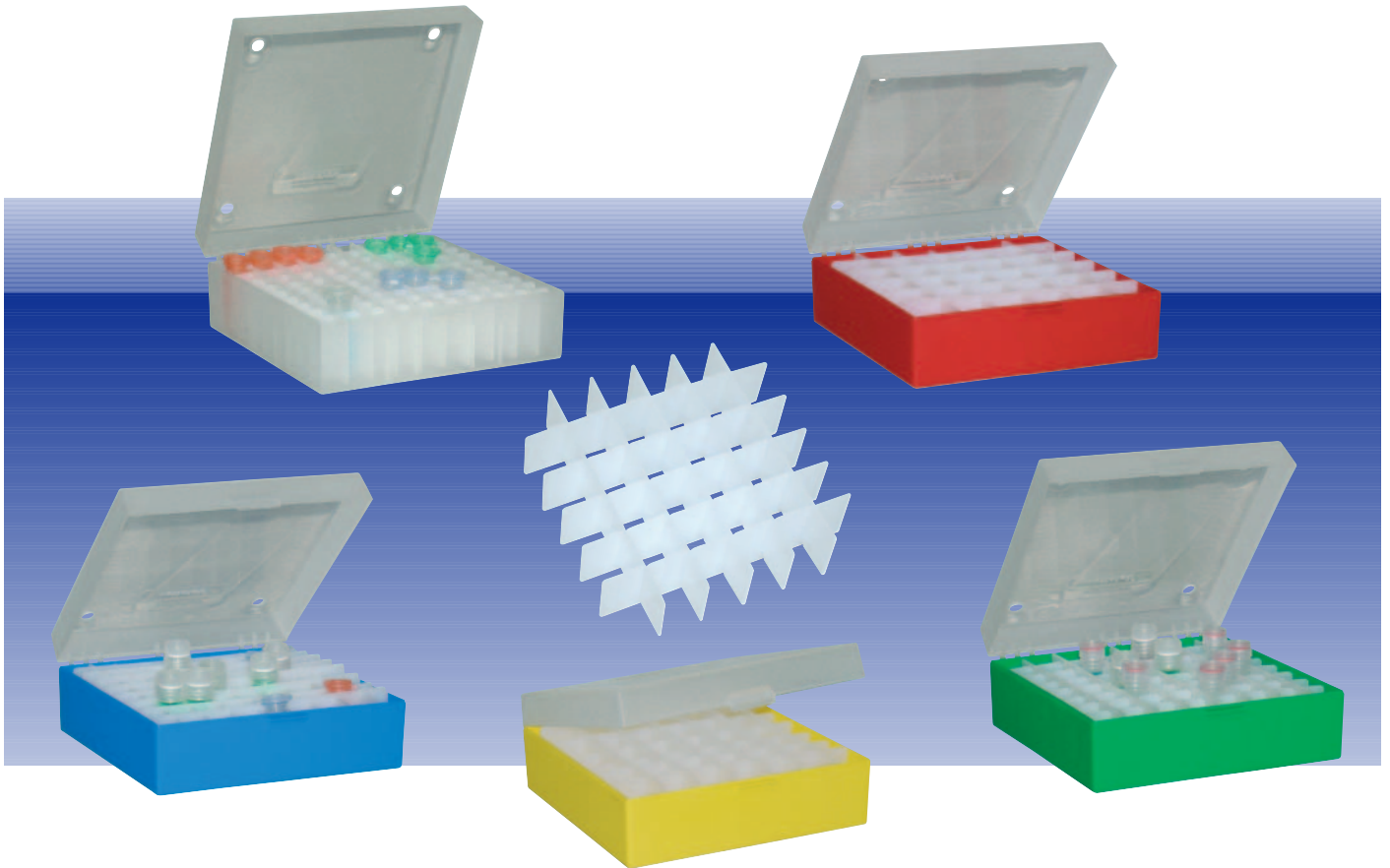
ratiolab® Cryo Boxes with Grids, PP

High quality polypropylene. Available in natural and different colors.

- autoclavable, temperature resistant from +90 °C to -121 °C
- 81 places, 9 x 9 grid, numerically coded
- robust hinge with safe snap-on lid
- stackable for safe transport
- drain bores at the bottom for dew liquids
- removable grid inserts
- Cryo Boxes can also be used for larger vessels by removing the grid inserts

Further plastic inserts available on request.

Product Color	Size L x W x H	Quantity per Pack	Order Number
for Cryo Tubes 1.2 - 2 ml, 81 places, 9 x 9 grid			
natural	133 x 133 x 52 mm	5	51 20 010
yellow	133 x 133 x 52 mm	5	51 20 011
red	133 x 133 x 52 mm	5	51 20 012
green	133 x 133 x 52 mm	5	51 20 013
blue	133 x 133 x 52 mm	5	51 20 014
for Cryo Tubes 3 - 4 ml, 81 places, 9 x 9 grid			
natural	133 x 133 x 75 mm	5	51 20 020
yellow	133 x 133 x 75 mm	5	51 20 021
red	133 x 133 x 75 mm	5	51 20 022
green	133 x 133 x 75 mm	5	51 20 023
blue	133 x 133 x 75 mm	5	51 20 024

ratiolab[®] Cryo Boxes and Grid Inserts, PP

ratiolab[®] Cryo Boxes and Grid Inserts, PP

The new ratiolab[®] Cryo Boxes with separate exchangeable Grid Inserts provide more flexibility. The Cryo Boxes are made of high quality polypropylene. They are available in natural and four more colors with a height of 52 or 75 mm.

The separate, natural color polypropylene Grid Inserts are available with five different grid sizes. They can easily be removed for storing sample tubes with different tube diameters. The Grid Inserts fit into all ratiolab[®] Cryo Boxes. The cleaning of the Cryo Boxes and the separate Grid Inserts is more efficient compared to boxes with fixed grids.

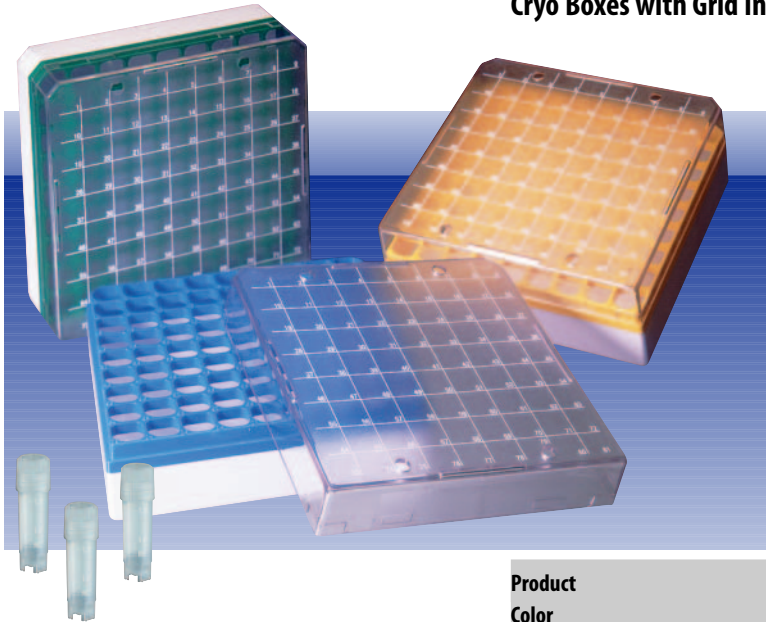
- autoclavable, temperature resistant from -90 °C to +121 °C
- robust hinge with safe snap-on lid
- stackable for safe transport
- drain bores at the bottom for dew liquids
- Cryo Boxes can also be used for larger vessels by removing the grid inserts

Product Color	Size L x W x H	Quantity per Pack	Order Number
Cryo Boxes without grid insert			
natural	133 x 133 x 52 mm	5	52 20 010
yellow	133 x 133 x 52 mm	5	52 20 011
red	133 x 133 x 52 mm	5	52 20 012
green	133 x 133 x 52 mm	5	52 20 013
blue	133 x 133 x 52 mm	5	52 20 014
natural	133 x 133 x 75 mm	5	52 20 020
yellow	133 x 133 x 75 mm	5	52 20 021
red	133 x 133 x 75 mm	5	52 20 022
green	133 x 133 x 75 mm	5	52 20 023
blue	133 x 133 x 75 mm	5	52 20 024
Grid Inserts			
6 x 6	133 x 133 x 30 mm	1	52 20 100
7 x 7	133 x 133 x 30 mm	1	52 20 101
8 x 8	133 x 133 x 30 mm	1	52 20 102
9 x 9	133 x 133 x 30 mm	1	52 20 103
10 x 10	133 x 133 x 30 mm	1	52 20 104

Cryo Products

Cryo Boxes with Grids, PC

Cryo Boxes with Grid Inserts, Polycarbonate



High quality polycarbonate. Available in different colors.

- autoclavable, temperature resistant from +121 °C to -190 °C
- 81 or 100 places, 9 x 9 resp. 10 x 10 grids numerically coded
- stackable for safe transport
- drain bores at the bottom for dew liquids
- Cryo Boxes can also be used for larger vessels by removing the grid inserts

Product Color	Size L x W x H	Quantity per Pack	Order Number
for Cryo Tubes 1.2 - 2 ml, 81 places, 9 x 9 grid			
yellow	133 x 133 x 52 mm	1	51 50 004
red	133 x 133 x 52 mm	1	51 50 003
green	133 x 133 x 52 mm	1	51 50 002
blue	133 x 133 x 52 mm	1	51 50 001

for Cryo Tubes 1.2 - 2 ml, 100 places, 10 x 10 grid			
yellow	133 x 133 x 52 mm	1	51 50 014
red	133 x 133 x 52 mm	1	51 50 013
green	133 x 133 x 52 mm	1	51 50 012
blue	133 x 133 x 52 mm	1	51 50 011

for Cryo Tubes 3 - 5 ml, 81 places, 9 x 9 grid			
yellow	133 x 133 x 95 mm	1	51 50 024
red	133 x 133 x 95 mm	1	51 50 023
green	133 x 133 x 95 mm	1	51 50 022
blue	133 x 133 x 95 mm	1	51 50 021

Special Adhesive Labels for Cryo Boxes

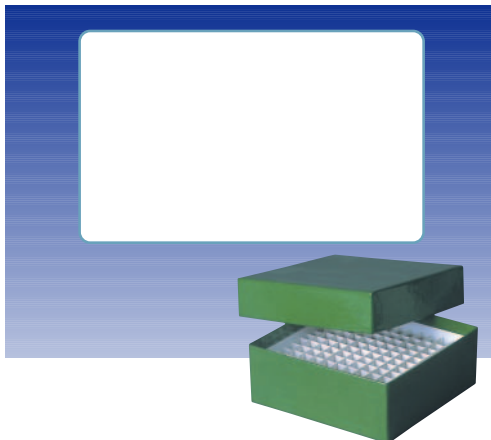
Labels with a special surface for durable individual labelling.

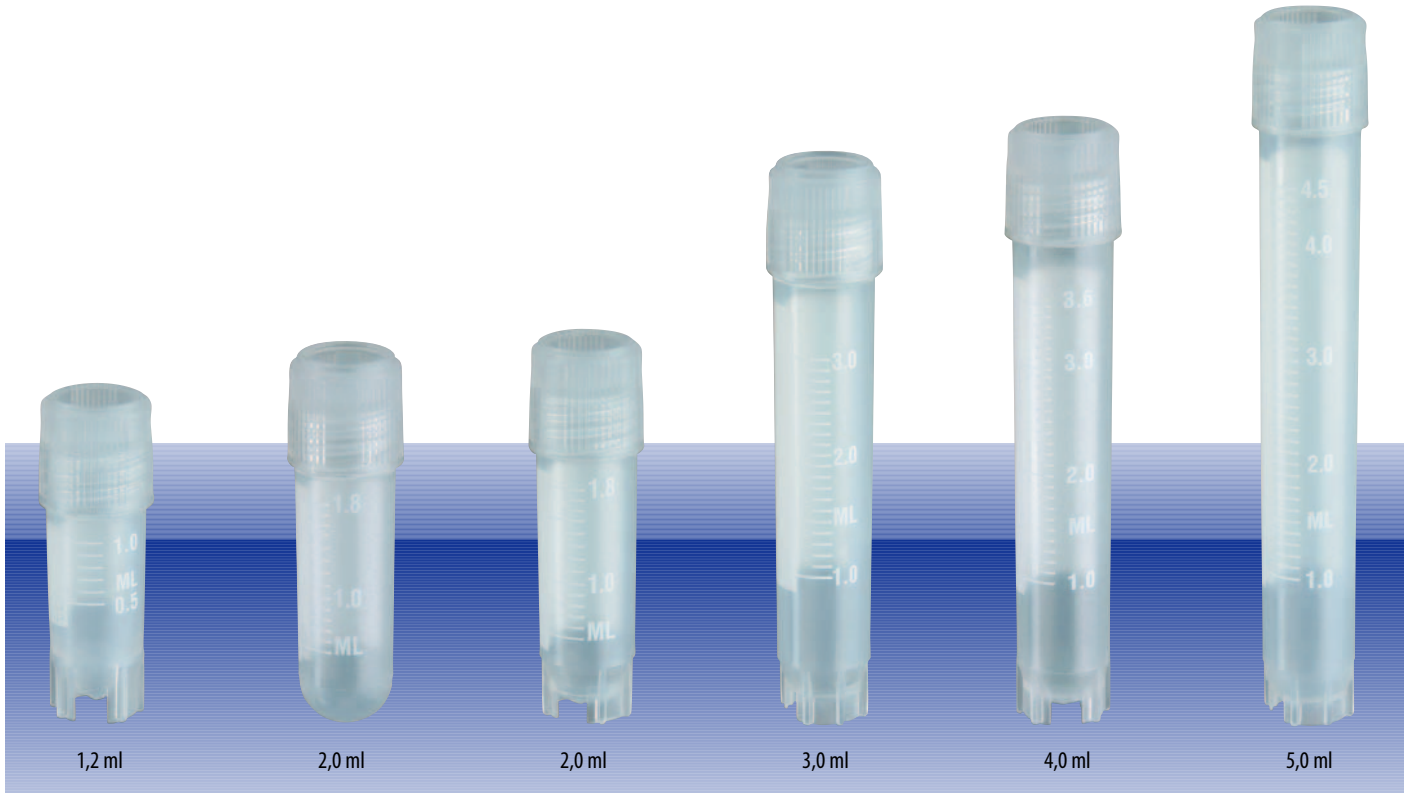
For Cryo Boxes made from cardboard or plastics.

- adhesive resists temperatures to -80 °C

- size 65 x 40 mm

Product Description	Quantity per Pack	Order Number
Special Adhesive Labels for Cryo Boxes	100	51 20 001





Cryo Tubes

Polypropylene with highest translucence.

For the storing and conservation of tissue cultures and biological samples e.g. sera, blood and spermata.

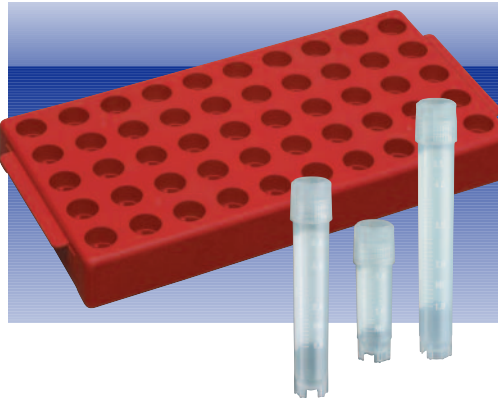
For applications to -190°C in the gaseous phase of liquid nitrogen or in freezers.

- pyrogene-free
- DNase-, RNase- and DNA-free
- conical bottom inside for optimum sample recovery
- white label and white graduation
- Cryo Tubes with male thread
- positive leakproof screw cap available in two version:
 - with integrated lips without additional sealing ring
 - with silicone-o-ring sealing
- Cryo Tubes with self standing base provide easy one-hand operation in the Work Stations
- 2 ml Cryo Tubes also available with round base
- Packed in cardboard boxes with 10 PE-bags x 100 pcs.

Volume	Description	Size Dia. x High	Quantity per Pack	Order Number
Cryo Tubes with integrated Lip Sealing				
1.2 ml	self standing	12.5 x 43 mm	1000	51 10 012
2.0 ml	round base	12.5 x 48 mm	1000	51 10 020
2.0 ml	self standing	12.5 x 49 mm	1000	51 10 022
3.0 ml	self standing	12.5 x 72 mm	1000	51 10 030
4.0 ml	self standing	12.5 x 78 mm	1000	51 10 040
5.0 ml	self standing	12.5 x 92 mm	1000	51 10 050
Cryo Tubes with Silicone O-Ring Sealing				
1.2 ml	self standing	12.5 x 43 mm	1000	51 10 112
2.0 ml	round base	12.5 x 48 mm	1000	51 10 120
2.0 ml	self standing	12.5 x 49 mm	1000	51 10 122
3.0 ml	self standing	12.5 x 72 mm	1000	51 10 130
4.0 ml	self standing	12.5 x 78 mm	1000	51 10 140
5.0 ml	self standing	12.5 x 92 mm	1000	51 10 150

Cryo Products

Cryo Tubes Accessories



Work Stations for 50 Cryo Tubes

High quality polypropylene.
For 50 Cryo Tubes 1.2 to 5 ml with 12.5 mm outer diameter.
Cryo Tubes with self standing base are automatically locked in the Work Station and can easily be screwed and unscrewed with one hand.

- with non-slip feet, the Work Stations stand safely on laboratory benches
- autoclavable
- size 100 x 200 x 25 mm

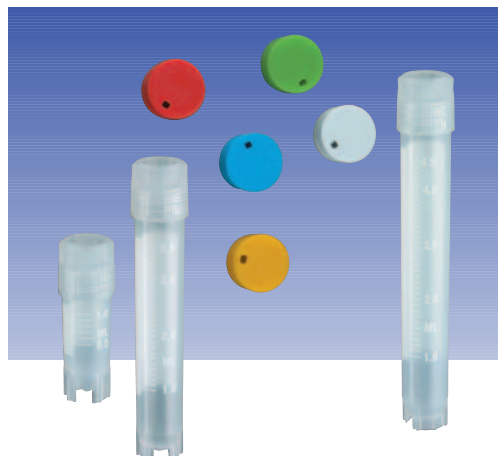
Color	Quantity per Pack	Order Number
blue	4	53 00 100
red	4	53 00 200
lilac	4	53 00 400



Canes for Cryo Tubes, Aluminum

For storing up to 5 Cryo Tubes 1.2 and 2 ml.
Length 290 mm.

Product Description	Quantity per Pack	Order Number
Canes for Cryo Tubes	12	54 40 100



Color Coding Cap Inserts for Cryo Tubes

Polypropylene. For Cryo Tubes 1.2 to 5.0 ml.
Packed in PE-bags with 500 pcs.

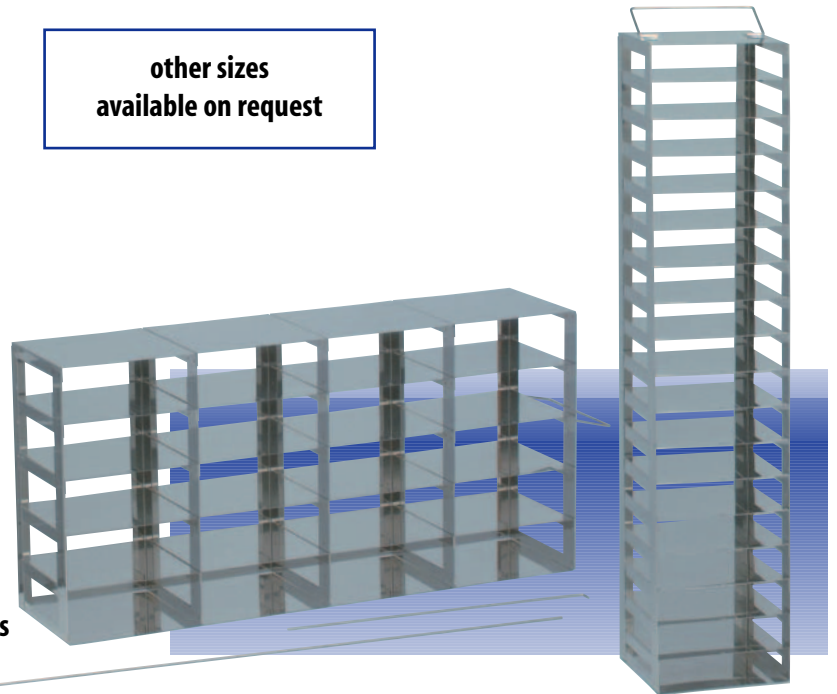
Color	Quantity per Pack	Order Number
white	500	51 10 001
red	500	51 10 002
blue	500	51 10 003
green	500	51 10 004
yellow	500	51 10 005
lilac	500	51 10 006
mixed, 5 bags x 100 pcs. white, red, blue, green, yellow	500	51 10 007

Cryo Racks for Cryo Boxes, Stainless Steel

For the storing of Cryo Boxes in freezer cabinets and chests.
Stainless steel.

- polished surfaces for perfect cleaning
 - robust construction
 - handles for convenient transport
 - Cryo Racks can be supplied with shelf sizes for any standard Cryo Boxes
 - a safety catch locks the Cryo Boxes in a safe position for transport
- Cryo Rack standard sizes are listed in the tables on the next page.

other sizes
available on request



Cryo Racks for Freezer Cabinets and Freezer Chests

Number of Shelves horizontal x vertical	Rack Size L x W x H	for Cryo Boxes Height				Quantity per Pack	Order Number
		32 mm	50 mm	75 mm	100 mm		
Cryo Racks for Freezer Cabinets							
3 x 3	424 x 140 x 165 mm		■			1	54 00 007
3 x 4	424 x 140 x 219 mm		■			1	54 00 009
3 x 5	424 x 140 x 274 mm		■			1	54 00 022
4 x 3	566 x 140 x 240 mm			■		1	54 00 006
4 x 3	566 x 140 x 314 mm				■	1	54 00 040
4 x 4	566 x 140 x 219 mm		■			1	54 00 004
4 x 4	566 x 140 x 319 mm				■	1	54 00 005
4 x 5	566 x 140 x 274 mm		■			1	54 00 003
4 x 6	566 x 140 x 328 mm		■			1	54 00 002
Cryo Racks for Freezer Chests							
1 x 4	140 x 140 x 222 mm		■			1	54 00 041
1 x 6	140 x 140 x 482 mm			■		1	54 00 028
1 x 7	140 x 140 x 385 mm		■			1	54 00 042
1 x 7	140 x 140 x 561 mm			■		1	54 00 029
1 x 8	140 x 140 x 441 mm		■			1	54 00 027
1 x 8	140 x 140 x 641 mm			■		1	54 00 030
1 x 9	140 x 140 x 495 mm		■			1	54 00 026
1 x 9	140 x 140 x 720 mm			■		1	54 00 031
1 x 10	140 x 140 x 550 mm		■			1	54 00 000
1 x 11	140 x 140 x 406 mm	■				1	54 00 032
1 x 11	140 x 140 x 604 mm		■			1	54 00 023
1 x 12	140 x 140 x 443 mm	■				1	54 00 033
1 x 12	140 x 140 x 659 mm		■			1	54 00 025
1 x 13	140 x 140 x 479 mm	■				1	54 00 034
1 x 13	140 x 140 x 713 mm		■			1	54 00 001
1 x 14	140 x 140 x 516 mm	■				1	54 00 035
1 x 15	140 x 140 x 552 mm	■				1	54 00 036
1 x 16	140 x 140 x 589 mm	■				1	54 00 037
1 x 17	140 x 140 x 625 mm	■				1	54 00 038
1 x 18	140 x 140 x 662 mm	■				1	54 00 024



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