



CHEMICAL-PORCELAIN LABWARE

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History of Labware

At the beginning of the 20th century, the best chemical-porcelain labware obtainable was being produced by several German porcelain factories.

World War I quickly curtailed the import of these wares, forcing laboratories throughout the U.S. to use poor and variable-quality porcelain. The end result was frustration and inefficiency due to lost samples and the diversion of energy from constructive work.

A mounting domestic need prompted several American potteries to undertake the manufacture of high-quality chemical-porcelain ware. CoorsTek (formerly Coors Ceramics Company) was the only firm to consistently provide quality labware.

CoorsTek started producing chemical-porcelain labware in 1914. By 1960, the company's factory output fulfilled the needs of the entire United States. The main factor contributing to this success was the company's willingness to invest in technological advancements.



Today, CoorsTek continues the tradition of manufacturing the highest quality chemical porcelain labware available to chemists and lab technicians across the globe.

Thomas Edison and his son, Charles, in their home lab in the early 1900s using Coors labware — still present today in what is now the Thomas Edison National Historic Park, West Orange, New Jersey.

Photo courtesy NPS

Terms of Sale

- In stock items will typically ship in 3 to 5 working days
- Expedited shipment available for a nominal fee
- Terms: Net 30 days (with approved credit)
Master Card, Visa, and American Express accepted
- Minimum line item charge is applicable
- CoorsTek standard terms and conditions apply - visit www.coorstek.com/terms-conditions for more information
- Verbal orders are placed at the risk of the purchaser
- CoorsTek reserves the right to add or discontinue items at any time without notice

Ordering Information

Certain laboratory supply firms in principal cities are authorized to act as dealers in CoorsTek Porcelain Ware. These dealers carry sufficient stocks of all items listed in this catalog to render good service. Ordering of catalog items may be done through them or ordered directly from CoorsTek. Special items not listed herein may be ordered either through dealers or directly from CoorsTek, Inc.

AD-998 (High-Purity Aluminum Oxide) Labware can be ordered directly from CoorsTek. Please contact us for more information.

CoorsTek has a highly qualified staff to assist with providing accurate material information and product design. For assistance with Labware products, please contact us or call: +1 303 271 7100 +1 855 929 7100 (toll free in USA).

Warranty

CoorsTek, Inc. expressly warrants its products to conform to the material specifications outlined in this catalog. This is our sole warranty with respect to these goods.

The characteristics of the raw materials and nature of the processes used to produce catalog items make it impossible to guarantee exact measurements and capacities.

Dimensional descriptions indicate relative sizes and are provided as a convenient reference for our customers. If your dimensional needs are specific, please contact a CoorsTek customer service representative.

CoorsTek, Inc. makes no other warranty, expressed or implied, of any kind. CoorsTek expressly disclaims any implied warranty of merchantability and any implied warranty of fitness for a particular purpose intended by the purchaser.

Important Properties of CoorsTek Chemical-Porcelain Ware

Thermal-Shock Resistance

Average coefficient of expansion from 20° C to 200° C is 3.56×10^{-6} , gradually increasing to 4.69×10^{-6} at 1000° C. Experience has indicated suitability of particular shapes for specific uses. It remains the responsibility of the user to determine the suitability for use. To prevent thermal stress cracks on porcelain ware, CoorsTek strongly recommends a heating/cooling rate not to exceed 200° C/hour. High-alumina labware temperature change rate should not exceed 150° C/hour.

Prolonging Labware Life

- Follow gradual heating and cooling rates.
- Use an oven or hot plate as an intermediate step when quicker heating/cooling rates are required.
- Gradually increase flame intensity when using a gas burner.
- Avoid contact of heated ware with a cold surface.
- Carefully inspect your labware prior to each use.
- Do not use any product that appears defective.

Hardness

57.5 on the Rockwell 45N scale

Refractory Qualities

Fusion point: 1670° C

Softening point: 1400° C

Limit of use, unglazed: 1400° C

Limit of use, glazed: 1150° C

Limit of use, evacuated: 1300° C

To Order:

+1 303 271 7100

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www.coorstek.com/labware

CHEMICAL-PORCELAIN LABWARE

Boat

Combustion, unglazed.



CATALOG NUMBER	CAPACITY (mL)	HEIGHT (mm)	LENGTH (mm)	WIDTH (mm)	NUMBER IN PACKAGE
66032	3	8	75	13	24
66035	10	9	105	14	24
66036	20	13	130	20	18

Capsule

Flat bottom, glazed inside and partially outside.



CATALOG NUMBER	OUTSIDE DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)	NUMBER IN PACKAGE
66048	47	13	12	36
66050	81	20	70	24

Capsule

Combustion, rounded bottom, glazed inside and out except for rim.



CATALOG NUMBER	TOP OUTSIDE DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)	NUMBER IN PACKAGE
66053	40	20	20	36
66054	50	25	35	24

Casserole

With lip and flat porcelain handle, glazed inside and out except for rim and top of handle.



CATALOG NUMBER	TOP OUTSIDE DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)	NUMBER IN PACKAGE
66058	67	39	85	12
66059	85	49	175	12
66060	100	50	270	12
66062	120	64	450	6
66064	150	86	960	4

Cover

For crucibles listed on following pages - glazed all over except for rim.



CATALOG NUMBER	DIAMETER INSIDE (mm)	FOR CRUCIBLE, CAPSULE, CUP	NUMBER IN PACKAGE
66122	34	66104, 66133, 66146	72
66123	39	66105, 66148, 66155	72
66124	49	66053, 66107, 66170, 66135, 66151	72
66125	54	66054, 66108, 66136	72
66126	74	66109, 66110, 66153, 66137, 66138	60
66127	84	66112	48

CHEMICAL-PORCELAIN LABWARE

Numbered Crucibles

Crucibles can be supplied with a permanent numeral marked on the outside surface for an additional charge. Quotations for numbering are available upon request.

Crucible

High form, glazed inside and out except for outside bottom surface and rim.

(see page 4 for covers)



CATALOG NUMBER	TOP OUTSIDE DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)	NUMBER IN PACKAGE
66104	31	26	10	72
66105	35	28	12	72
66107	45	36	20	36
66108	50	40	30	36
66109	60	49	80	24
66110	70	56	120	24
66112	80	62	200	12

Crucible

Wide form, glazed inside and out except for outside bottom surface and rim.

(see page 4 for covers)



CATALOG NUMBER	TOP OUTSIDE DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)	NUMBER IN PACKAGE
66133	32	20	5	72
66135	41	26	17	48
66136	50	31	30	36
66137	60	38	62	24
66138	70	44	91	24
66139	84	52	150	18
66140	102	60	250	12

Crucible

Gooch, with perforated bottom, glazed inside and out except for outside bottom surface and rim. Used for total suspended solids determination.



CATALOG NUMBER	TOP OUTSIDE DIAMETER (mm)	FOR FILTER PAPER DIAMETER (mm)	DIAMETER OF PERFORATIONS (mm)	CAPACITY (mL)	NUMBER IN PACKAGE
66146	29	15-16	0.7	15	24
66148	36	20-21	0.7	25	24
66151	40	23-24	0.6	34	18
66153	60	30	1	120	6

Crucible

Gooch, with perforated bottom and two wall holes for suspending in extraction apparatus. Glazed inside and out except for outside bottom surface and rim. Used for total suspended solids determination.



CATALOG NUMBER	TOP OUTSIDE DIAMETER (mm)	FOR FILTER PAPER DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)	NUMBER IN PACKAGE
66155	35	20-21	40	25	18

CHEMICAL-PORCELAIN LABWARE

Crucible

Bitumen, with perforated bottom, glazed inside and out except for outside bottom surface and rim. Used for similar applications as Gooch crucibles.



CATALOG NUMBER	TOP OUTSIDE DIAMETER (mm)	FOR FILTER PAPER DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)	NUMBER IN PACKAGE
66170*	44	30-33	24	28	12

Crucible

Rose, unglazed.



CATALOG NUMBER	TOP OUTSIDE DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)	NUMBER IN PACKAGE
66166	50	60	75	24

Dish

Evaporating, with lip. Glazed inside and out except for the rim and partly outside.



CATALOG NUMBER	TOP OUTSIDE DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)	NUMBER IN PACKAGE
66196	60	24	30	48
66198	80	32	60	24
66200	94	42	140	24
66201	100	40	150	18
66202	112	47	232	18
66204	140	61	400	12
66205	160	64	580	12
66206	170	74	700	8
66207	200	80	1,000	6
66209	202	86	1,300	4
66210	250	105	2,500	3

Dish

Evaporating, with lip, shallow form, rounded bottom edge, vertical sides, glazed inside and out except for outside bottom and rim.



CATALOG NUMBER	TOP OUTSIDE DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)	NUMBER IN PACKAGE
66221	70	35	100	16

Dish

Evaporating with lip, shallow form, glazed inside except for rim and partially outside.



CATALOG NUMBER	TOP OUTSIDE DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)	NUMBER IN PACKAGE
66230	75	16	28	24
66231	80	20	50	24
66233	100	25	110	18
66234	130	30	250	12
66236	160	40	290	8

CHEMICAL-PORCELAIN LABWARE

Funnel

Buchner, with fixed perforated plate, glazed inside and out except for rim.



CATALOG NUMBER	FOR FILTER PAPER DIAMETER (mm)	HEIGHT (mm)	APPROX. CAPACITY (mL)	NUMBER IN PACKAGE
66239	35-40	100	25	12
66240	55	120	70	8
66242	70	130	120	6
66243	90	150	240	4
66244	110	180	400	4
66245	123	190	600	2
66246	150	240	1,000	2
66247	185	270	2,000	2
66248	240	300	4,000	1

Funnel

Hirsch, with fixed perforated plate. Glazed except for rim.



CATALOG NUMBER	OUTSIDE DIAMETER ACROSS TOP (mm)	FILTER PAPER DIAMETER (mm)	APPROX. CAPACITY (mL)	NUMBER IN PACKAGE
66297	45	13	10	18
66298	55	13-15	20	12
66299	50	25-30	10	12
66301	78	40-47	50	12
66302	94	55	130	8

Marking Ink

For permanently marking laboratory porcelain and other ceramic ware. May be applied with pen or brush. Marked surface must be heat-treated to become permanent. Use instructions on bottle. Widemouth bottle with screw cap.



CATALOG NUMBER	LENGTH (mL)	NUMBER IN PACKAGE
60015	15	18

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Plate

Desiccator, with numerous small perforations, large hole in center, glazed on top surface.



CATALOG NUMBER	DIAMETER (mm)	DIAMETER OF CENTER HOLE (mm)	DIAMETER OF HOLES (mm)	NUMBER IN PACKAGE
66452	190	20	3	4
66453	240	20	3	3

Plate

Desiccator, with numerous 5mm perforations, large hole in center, glazed on top surface.



CATALOG NUMBER	DIAMETER (mm)	DIAMETER OF CENTER HOLE (mm)	DIAMETER OF HOLES (mm)	NUMBER IN PACKAGE
66455	190	30	5	3
66456	240	30	5	3

Plate

Color-reaction or spot plates, glazed except for bottom surface.



CATALOG NUMBER	LENGTH (mm)	WIDTH (mm)	NUMBER DEPRESSIONS	NUMBER IN PACKAGE
66425	112	81	6	24
66429	115	91	12	12

Traditional Design Chemical-Porcelain Ware

Mortars and pestles suitable for basic laboratory purposes

Mortar and Pestle

Mortar: with glazed lip and outside except bottom oversized for hand comfort, glazed to grinding surface.

Pestle: oversized for hand comfort in grinding.



CATALOG NUMBER	TOP OUTSIDE DIAMETER (mm)	LENGTH (mm)	HEIGHT (mm)	CAPACITY (mL)	ARTICLE	NUMBER IN PACKAGE
66310	70		47	50	Mortar	18
66311		114			Pestle	18
66313	80		55	75	Mortar	18
66314		130			Pestle	18
66316	105		65	150	Mortar	12
66317		157			Pestle	12
66319	128		75	300	Mortar	8
66320		180			Pestle	8
66322	144		88	420	Mortar	8
66323		194			Pestle	8
66325	178		100	750	Mortar	4
66326		222			Pestle	4
66328	203		110	1,200	Mortar	2
66329		262			Pestle	2
66331	283		150	4,000	Mortar	1
66332		280			Pestle	1

AD-998 HIGH-ALUMINA LABWARE

CoorsTek AD-998 labware is made of 99.8%-pure aluminum oxide. Highly resistant to chemical attack, this alumina-ceramic labware is especially useful to chemists, metallurgists, and others involved in high-temperature work demanding contamination-free results. AD-998 labware is highly refractory, meant for use in reducing and oxidizing atmospheres. It is inert in hydrogen and carbonaceous atmospheres and offers high resistance to alkalis and other fluxes. It is suitable for glass melting, including borosilicate glass. Recommended for use with refractory metals such as molybdenum, platinum, rhodium, tungsten, tantalum, and iridium. High-alumina labware temperature change rate should not exceed 150° C/hour.

CoorsTek AD-998 High-Alumina Properties

Maximum Use Temperature (No Load)	1750° C
Thermal-Expansion Coefficient (25° to 1000° C)	$8.0 \times 10^{-6}/^{\circ}\text{C}$
Compressive Strength	>300,000 psi
Specific Gravity	3.9 (Typical)
Hardness	79 on Rockwell 45N scale 9 on Mohs scale
Permeability	Gas-tight
Water Absorption	None
Chemical Tests (65503 Crucible ² 32g weight)	Hot concentrated sulfuric acid, 100° C (4 hours.: weight loss $-6 \times 10^{-4}\%$) Hot 10% sodium hydroxide, 100° C (4 hours.: weight loss $-9 \times 10^{-4}\%$) Hot 50% phosphoric acid, 90° C (4 hours.: weight loss -0.16%)

These AD-998 items are available from laboratory supply dealers or directly from CoorsTek, Inc. Other shapes are available on special order. Additional information regarding AD-998 properties is available upon request.

General Maintenance Recommendations

For best product performance, please review the following suggestions for care and maintenance:

1. Prolonging the life of your labware can be done by:
 - a. Following a gradual heating/cooling rate to avoid sudden changes in temperature, we recommend a rate not to exceed 200°C per hour for chemical porcelain or 150°C per hour for high alumina labware (heat up or cool down)
 - b. Using an oven or hot plate as an intermediate step during the heating/cooling cycle when a quicker rate is required.
 - c. Avoiding contact of the heated product with a cold surface.
 - d. Gradually increasing flame intensity when using a Bunsen burner until desired temperature is reached.
2. Carefully inspect your labware prior to each use. Do not use any product which appears defective.

Contact your supplier for replacements.

If you have any further concerns or problems, please contact CoorsTek.

AD-998 HIGH-ALUMINA LABWARE

Crucible High Form

AD-998



CATALOG NUMBER	DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)
65501	29	31	10
65503	38	35	20
65504	48	47	50
65505	58	61	100
65506	76	93	250
65507	90	118	500

Crucible Conical

AD-998



CATALOG NUMBER	DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)
65518	43	53	50
65519	55	68	100
65520	73	95	250
65521	90	128	500
65522	104	150	750

Crucible Cylindrical

AD-998



CATALOG NUMBER	DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)
65530	13	25	2
65531	18	26	5
65532	24	19	6
65535	28	40	20
65536	25	100	40
65537	35	64	50
65539	39	91	100
65541	54	91	180
65542	59	104	250
65543	69	148	500
65544	83	160	750
65545	93	167	1,000
65546	105	194	1,500
65547	127	228	2,400
65548	178	228	4,750

AD-998 HIGH-ALUMINA LABWARE

Combustion Boat

AD-998



CATALOG NUMBER	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	CAPACITY (mL)
65560	30	8	7	1
65562	50	12	9	3
65563	70	14	10	5
65564	90	17	11.5	10
65565	100	20	13	15
65566	105	22	14.5	20
65568	137	27	21	50

Rectangular Tray

AD-998



CATALOG NUMBER	LENGTH (mm)	WIDTH (mm)	HEIGHT (mm)	CAPACITY (mL)
65576	40	30	6	5
65577	60	40	8	13
65578	75	50	12	32
65579	100	45	19	64
65580	150	65	19	130
65581	200	90	25	340
65582	188	140	42	750

Circular Dish

AD-998



CATALOG NUMBER	DIAMETER (mm)	HEIGHT (mm)	CAPACITY (mL)
65591	40	10	10
65592	50	12	20
65593	60	20	50
65594	75	26	100

Crucible Cover

AD-998

Note: Due to unavoidable variations in manufacturing processes, cover may not fit precisely on crucibles.



CATALOG NUMBER	FOR CRUCIBLE NUMBER
65602	65533
65603	65532, 65536, 65538
65604	65535
65605	65501
65606	65517
65607	65537
65608	65503, 65539, 65540, 65591
65611	65504
65612	65519, 65541
65613	65505, 65542, 65593
65615	65543
65616	65506, 65520, 65594
65620	65522

AD-998 HIGH-ALUMINA LABWARE

Disc

AD-998



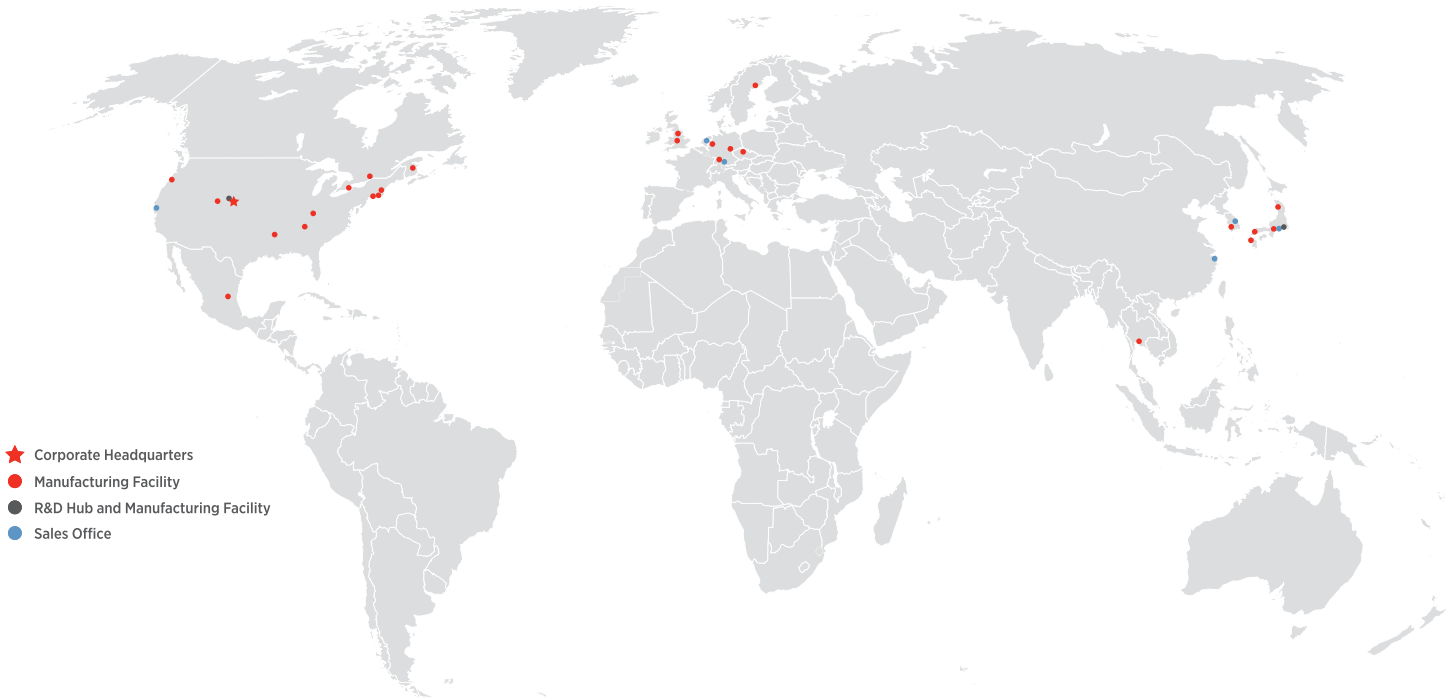
CATALOG NUMBER	DIAMETER (mm)	DIAMETER (inch)	THICKNESS (mm)	THICKNESS (inch)
65631	25	1	2	$\frac{1}{16}$
65640	32	$1\frac{1}{4}$	2	$\frac{3}{32}$
65632	38	$1\frac{1}{2}$	2	$\frac{3}{32}$
65633	51	2	2	$\frac{3}{32}$
65634	64	$2\frac{1}{2}$	3	$\frac{1}{8}$
65635	76	3	3	$\frac{1}{8}$
65636	89	$3\frac{1}{2}$	4	$\frac{5}{32}$
65637	102	4	4	$\frac{3}{16}$
65638	127	5	5	$\frac{3}{16}$
65639	152	6	5	$\frac{3}{16}$

Rectangular Plate

AD-998



CATALOG NUMBER	LENGTH (mm)	WIDTH (inch)	THICKNESS (mm)
65479	108	53	4
65480	161	76	4.5
65481	216	102	5
65482	197	147	5



We Make The World Measurably Better

Global Presence

Whether your company is global or domestic, CoorsTek works to serve you locally — supporting your business with manufacturing locations worldwide. Our customer focus is the reason we have become the world’s leading manufacturer of technical ceramics and advanced materials, Learn more at www.coorstek.com



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