



Specifications & Technical Data Sheet

Chemical-resistant and durable epoxy resin products designed specifically for laboratories.

PROUDLY MANUFACTURED IN THE USA

SEFA 3 Certified



PRODUCT OVERVIEW

Chemical-Resistant Laboratory-Grade Epoxy Resin Work Surfaces

American Epoxy Scientific's chemical-resistant and durable work surfaces are manufactured via a thermosetting process. The raw materials, which include an epoxy resin, are mixed to a proprietary formula and then cast flat, creating a solid, continuous product. The result is a non-porous, chemical- and heat-resistant product designed to withstand the harshest of laboratory conditions.

Technical Data

Thickness (Imperial)	Thickness (Metric)
2-1/2"	64 mm
1-1/4"	32 mm
1" (standard)	25 mm
3/4"	19 mm
1/2"	12 mm
1/4"	6 mm

Standard color	Black
Regular colors	Charcoal Grey; Platinum; Grey; Pearl; Rock White; Sand; Sandstone; Ocean Blue; Dark Khaki; Brite White
Special colors	A color-matching program is available on request.
Surface finish	Uniform non-glare matte finish
Standard thickness	1"
Thickness tolerance	+/- 0.03"
Flatness tolerance	+/- 1/32" per running foot
Weight per sq. ft.	10 lbs (at 1" thickness)



SEFA 3 TESTING

Chemical & Stain Resistance

A SEFA-approved independent test house was used to test American Epoxy Scientific's chemical-resistant epoxy resin cast stone. The results confirm it passes the SEFA 3 Chemical and Stain Resistance test, conducted in accordance with SEFA 3 Work Surfaces, Section 2.1.1.

Test Methodology

- **Method A (volatile chemicals)** — A cotton ball saturated with the test chemical was placed in a small glass bottle (approx. 1 oz.), inverted on the test surface for 24 hours at 73° +/- 4° F.
- **Method B (non-volatile chemicals)** — 5 drops (1/4 cc) of the test chemical were placed on the surface and covered with a domed plastic cover (approx. 25 mm) for 24 hours at 73° +/- 4° F.
- After 24 hours, exposed areas were washed with water, a detergent solution, and isopropyl alcohol, rinsed with distilled water, dried, and rated per Section 2.1.2 under fluorescent lighting.

Rating Scale

Rating	Description
0 – No Effect	No detectable change in the material surface.
1 – Excellent	Slight detectable change in color or gloss; no change in function or life of the surface.
2 – Good	Clearly discernible change in color or gloss; no significant impairment of surface life or function.
3 – Fair	Objectionable change in appearance due to discoloration or etch; possible deterioration of function over an extended period.

Full chemical-by-chemical SEFA 3 test results are available as a separate download on the Documents page.



ASTM TESTING

Physical Property Test Results

Physical properties were tested by an approved SEFA laboratory in accordance with ASTM guidelines.

ASTM Method	Property	Result
D638	Tensile Strength	10,298 psi
D790	Flexural Strength	19,290 psi
D790	Flexural Modulus	2.43 x 10 ⁶ psi
D695	Compressive Strength	37,420 psi
D785	Rockwell Hardness	108
D570	Water Absorption (24 hrs)	+0.02%
D696	Coefficient of Linear Expansion	34 x 10 ⁻⁶
D792	Specific Gravity / Density	1.987 / 1.9831 (g/m ³)
D635	Fire Resistance	0 burn rate or self-extinguishing

Heat Resistance

A 3/8" Bunsen burner with a flame core of approx. 38 mm remained on the surface for two minutes, tested in two locations.

Result: No blistering or cracking.

Char Resistance

A porcelain crucible was heated to dull red, placed on the surface and left until cooled to room temperature, tested in two locations.

Result: No blistering, cracking or breakdown.



FABRICATION DETAIL

Work-Surface Edging & Fabrication

- All exposed edges and corners are free of saw marks, with a smooth uniform bevel or radius as required by architect drawings, and a specially formulated edge dressing applied for a smooth look.
- The underside of work surfaces can be finished if the laboratory design specifies exposure to the underside.
- Any cutouts can be made to meet the designer's needs. Sink cutouts have no less than a 3/4" radius in the corners, with drop-in and undermounted sinks finished around the cutout for a clean transition.
- Work surfaces have a continuous drip groove as needed, 1/2" from the edge, with a front and end overhang of 1" over the base cabinets for additional protection to the cabinetry.
- Work surfaces are fabricated for a smooth, square, watertight joint that can be bonded with epoxy resin for a smooth seam line.
- A marine edge can be provided, either molded or glued. A variety of molds are used to ensure a seamless finish.

Available edge profiles include a 1/8" beveled edge, a 3/16" radius edge, and a marine edge.



SINKS & OUTLETS

Epoxy Resin Sinks

All resin sinks are manufactured from the same resin formulation as the rest of American Epoxy Scientific's products and meet the same chemical and physical guidelines. Both lipped / drop-in and undermount configurations are available in a wide range of sizes.

Material	Same epoxy resin formulation as work surfaces
Thickness	Molded in one piece, 1/2" minimum
Lip thickness	Drop-in sinks have a 1/4" lip for a stronger bond to the cutout
Outlet size	Standard 3-1/2" on all sinks
Bottom detail	Smooth bottom slopes 1° to the outlet with a 1-1/2" coved radius in the bottom corners
Modifications	Can accept garbage disposals, fixture holes, or troughs when required
Supports	Undermount sinks supported per the furniture manufacturer's guidelines

A complete, current sink list with dimensions is available as a separate download on the Documents page.



SINKS & OUTLETS

Sink Outlets & Cup Sinks

Sink Outlet

Material	Polypropylene
Colors	Black; White; Rock White; Charcoal Grey; Grey; Sand; Dark Khaki
Lock nut	Black
Diameter	3-3/8"

Cup Sinks

Material	Polypropylene (also available in our epoxy resin formulation)
Colors	Black; Charcoal Grey; Rock White; Sand; Dark Khaki; Brite White
Sizes	3" x 9" and 3" x 6"; low-profile cup sinks available in black
Accessories	Standard polypropylene covers in black; fume hood cup sink covers in epoxy resin matched to the fume hood top



COMPONENTS

Box Curbs & Fume Hood Tops

Box Curbs & Loose Splash

- Made from the same material as the work surfaces, with identical chemical and physical properties.
- Standard 4" high and 1" thick unless otherwise noted; any size can be manufactured to meet the designer's needs.
- Free of saw marks, with a 1/16" bevel on the top sides to prevent sharp edges and a specially formulated edge dressing on all exposed edges.

Fume Hood Tops

- Manufactured in one piece to fit standard fume hood cabinets, designed in conjunction with the fume hood manufacturer for best fit, airflow and ease of installation.
- Any style of fume hood can be custom made to meet laboratory designers' needs.
- Manufactured with a 3/8" dish to contain spills, and modified with pipe slots, vent slots and cup sink cutouts to suit any cabinet design.
- Available in the entire color range of our work surfaces.



COMPONENTS

Epoxy Resin Pegboards

All resin pegboards are manufactured from the same material as the rest of our products and meet the same chemical and physical guidelines. Pegboards come in standard sizes; any size can be manufactured to meet the designer's needs.

Thickness	1" & 3/4"	Width	Height	Pegs
Material	Epoxy Resin	18	24	21
Colors	Black; Charcoal Grey; Grey; Rock White; Sand; Dark Khaki; Brite White	20	30	34
Peg material	Polypropylene	24	24	28
Peg colors	Black, White, Grey	24	30	38
Peg lengths	5", 6-1/2", 8"	24	36	43
Peg diameter	0.375"	30	30	51
		30	36	54
		36	30	60
		36	36	66
		42	30	68
		48	30	81
		48	36	88

Double-studded polypropylene pegs include a base to protect stored glassware. Stainless steel drip pans are also available to help prevent spills. If the back side of the pegboard is exposed it can be finished for a smooth, uniform appearance.



COMPONENTS

Epoxy Resin Balance Tables

All American Epoxy Scientific balance tables are manufactured from the same material as the rest of our resin products and meet the same chemical and physical guidelines.

- Fabricated from 2-1/2" thick epoxy for superior load-bearing capability.
- Fabricated with a 3/16" radius on all exposed sides, free of saw marks, with a specially formulated edge dressing applied to all sides for a uniform look.
- Standard size is 24" x 35".
- The balance table bar is fabricated from steel and coated black.



CONTACT

Quality & Reliability

American Epoxy Scientific is a veteran-owned manufacturer of chemical-resistant epoxy resin work surfaces, sinks, fume hood tops and pegboards — proudly made in the USA and installed in laboratories around the world.

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