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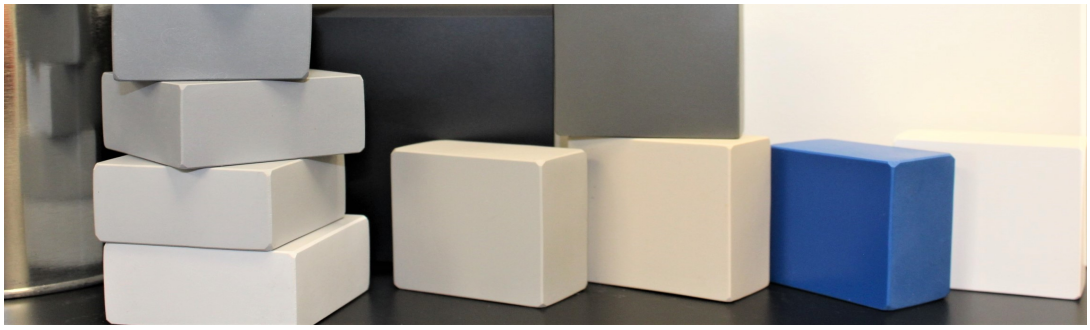

Chemical, Heat and Moisture Resistant Epoxy Resin Products Designed Specifically for Laboratories

Proudly Manufactured in the USA

Specifications & Technical Data Sheet 2022

American Epoxy Scientific LLC.

Chemical Resistant Laboratory Grade Epoxy Resin Cast 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 (Inches)	2 ½	1 ¼	1	¾	½	1/4
Metric (mm)	64	32	25	19	12	6

Standard: 1"

Thickness Tolerance: +/- 0.03

Flatness Tolerance: +/- 1/32 per running foot

Weight Per SQF: 10lbs

Colors:

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: a uniform non-glare matte finish

Color Tolerance:

Name/Color	Minimum "L" Value	Nominal "L" Value	Maximum "L" Value	Minimum "A" Value	Nominal "A" Value	Maximum "A" Value	Minimum "B" Value	Nominal "B" Value	Maximum "B" Value
	(black)		(White)	(Green)		(Red)	(Blue)		(Yellow)
Black	10.00	14.50	19.00	-0.10	0.20	0.50	0.00	1.50	3.00
Charcoal Gray	37.00	39.00	41.00	-1.00	0.00	1.00	-1.50	-0.50	1.50
Dark Khaki	33.50	37.00	40.50	0.00	0.75	1.50	3.50	5.50	7.50
Gray	60.00	62.00	64.00	-2.00	-1.00	0.00	-3.00	-1.50	0.00
Rock White	76.50	78.50	81.50	-2.00	-1.25	-0.50	-1.25	1.25	3.75
Sand	73.00	75.00	78.00	0.50	2.00	3.50	10.00	12.00	14.00
Brite White	89.50	92.00	94.50	-2.50	-1.25	0.00	2.50	5.00	7.50

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Chemical and Stain Resistance

Chemical	Method	Epoxysci-040
Amyl Acetate	A	0
Ethyl Acetate	A	0
Acetic Acid, 98%	B	0
Acetone	A	1
Acid Dichromate, 5%	B	0
Butyl Alcohol	A	0
Ethyl Alcohol	A	0
Methyl Alcohol	A	0
Ammonium Hydroxide, 28%	B	0
Benzene	A	0
Carbon Tetrachloride	A	0
Chloroform	A	0
Chromic Acid, 60%	B	2
Cresol	A	0
Dichloro Acetic Acid	A	0
Dimethylformamide	A	0
Dioxane	A	0
Ethyl Ether	A	0
Formaldehyde, 37%	A	0
Formic Acid, 90%	B	0
Furfural	A	0
Gasoline	A	0
Hydrochloric Acid, 37%	B	0
Hydrofluoric Acid, 48%	B	3
Hydrogen Peroxide, 28%	B	0
Tincture of Iodine	B	0
Methyl Ethyl Ketone	A	0
Methylene Chloride	A	1
Mono Chlorobezene	A	0
Napthalene	A	0
Nitric Acid, 20%	B	0
Nitric Acid, 30%	B	0
Nitric Acid, 70%	B	0
Phenol, 90%	A	0
Phosphoric Acid, 85%	B	1
Silver Nitrate, Saturated	B	0
Sodium Hydroxide, 10%	B	0
Sodium Hydroxide, 20%	B	0
Sodium Hydroxide, 40%	B	0
Sodium Hydroxide, Flake	B	0
Sodium Sulfide, Saturated	B	0
Sulfuric Acid, 33%	B	0
Sulfuric Acid, 77%	B	1
Sulfuric Acid, 96%	B	3
Sulfuric Acid 77% and Nitric Acid 70%, equal parts	B	1
Toluene	A	0
Trichloroethylene	A	0
Xylene	A	0
Zink Chloride, Saturated	B	0

A SEFA approved independent test house was used to test the American Epoxy Scientific's chemical resistant epoxy resin cast stone. The results highlight it passes the SEFA 3 Chemical and Stain resistant test.

Test Methodology:
The test was conducted in accordance with SEFA 3 Work Surfaces, Section 2.1.1 Chemical/Stain Resistance Test.

Test Method A - For volatile chemicals - A cotton ball, saturated with the test chemical, was placed in a small glass bottle (approx. 1 oz.). The container was inverted on the test material surface for a period of 24 hours at 73° +/- 4° F.

Test Method B - For non-volatile chemicals - 5 drops (1/4 cc) of the test chemical were placed on the test material surface. The chemical was covered with a domed plastic cover (approx. 25 mm) for a period of 24 hours at 73° +/- 4° F.

After 24 hours exposure, exposed areas were washed with water, then a detergent solution and finally with isopropyl alcohol. The panels were then rinsed with distilled (deionized) water and dried with a cloth. Each area of chemical exposure was numerically rated per Section 2.1.2. The panel was visually evaluated (under fluorescent lighting).

Rating:
0 No Effect - No detectable change in the material surface.

1 Excellent - Slight detectable change in color or gloss but no change in function or life of the surface.

2 Good - A clearly discernible change in color or gloss but no significant impairment of surface life or function.

3 Fair - Objectionable change in appearance due to discoloration or etch, possibly resulting in deterioration of function over an extended period of time.

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Physical Property Test Results

Physical properties were also tested by an approved SEFA laboratory. Testing was done in accordance with ASTM guidelines

ASTM D638, Tensile Strength: 10,298 psi
ASTM D790, Flexural Strength: 19,290 psi ASTM D790, Flexural Modulus: 2.43 x 10^6 psi ASTM D695, Compressive Strength: 37,420 psi ASTM D785, Rockwell Hardness: 108
ASTM D570, Water Absorption (24hrs): .02%
ASTM D696, Coefficient of Linear Expansion: 34 x 10^{-6}

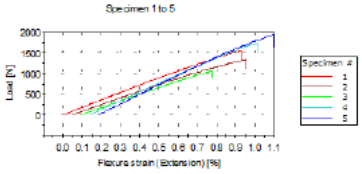
ASTM D792, Specific Gravity/Density: 1.987/1.9831(g/m3)
ASTM D635, Fire Resistance: 0 burn rate or self-extinguishing
Heat & Char Resistance: The material showed no blistering, cracking, or breakdown.
Heat Distortion: >260^0 C/ >500^0 F

Flexural Strength- Results

Procedure

SEFA 3 2010, SECTION 2.8, ASTM D790 (2015)

Test Speed: 4.9 mm/min
Support Span and Radius: 184 mm and 5 mm loading bar with 9.6 mm supports per ASTM
D790 (2015), Section 6.1.2.2
Test Conditions: +23°C, 46% RH



	Flexural Strength [MPa]	Modulus (Auto Young's) [MPa]	Maximum Load [N]
1	147	17400	1550
2	138	16800	1350
3	107	16500	1070
4	133	16500	1750
5	138	16700	1950
Mean	133	16800	1540
Standard Deviation	15.19	401.51	339.77

Heat Resistance –Results

A 3/8 inch Bunsen Burner with a flame of approximately 38mm core was allowed to remain on the material surface for two minutes. The specimen was tested in two locations. The surface was then evaluated for any blistering or cracking.

R**esults**: No blistering or cracking.

Char Resistance - Results

A porcelain crucible was heated until it was a dull red. The hot crucible was immediately placed on the material's surface and left on the work-surface until cooled to room temperature. The specimen was tested in two locations. The work-surface was then evaluated for any blistering, cracking or breakdown.
Results: No blistering, cracking or breakdown.

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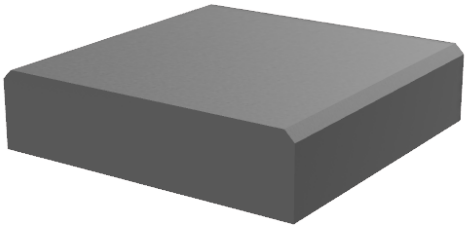
Work-Surface Edging

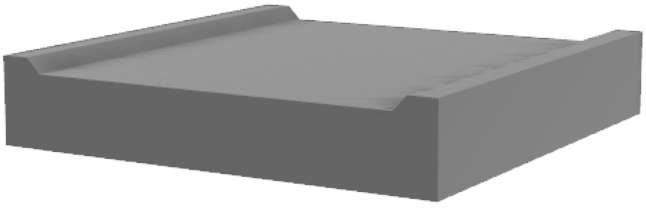
- All exposed edges and corners will be free of saw marks, have a smooth uniformed bevel or radius as required by architect drawings, and have a special formulated edge dressing applied to allow for a smooth look.
- The bottom side of the work-surfaces can also be finished if the laboratory design specifies exposure to the underside.
- Any cutouts can be made to the countertops to meet the designer's needs. Sink cutouts will have no less than ¾" radius in the corners, with drop in and under mounted sinks having a finish around the cutouts allowing for a clean transition from work-surface to sink.
- Work-surfaces have a continuous drip groove as needed under the surface ½" from the edge. In conjunction with the drip groove a front and end overhang of 1" over the base of cabinets shall allow for additional protection to the cabinetry.
- Work-surfaces shall be fabricated to allow for a smooth square watertight joint that can be bonded with an epoxy resin to allow for a smooth seamline.
- Work-surfaces can also be provided with a marine edge, either molded or glued. A variety of molds are used to ensure a seamless finish.

1/8" Beveled Edge



3/16" Radius Edge

Marine Edge



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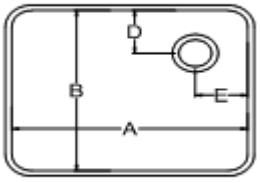
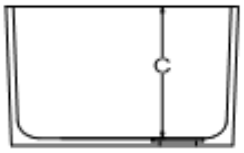
Epoxy Resin Sinks

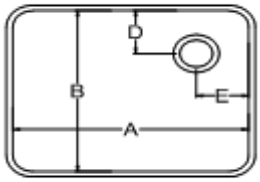


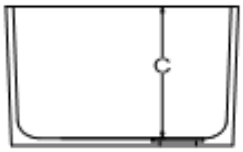


Lipped/Drop in sinks:

SINK	Wt. lbs.	"A" DIM	"B" DIM	"C" DIM	"D" DIM	"E" DIM	DRAIN
AESL-01C	12	9.00	6.00	6.00	3.00	4.50	CENTER
AESL-5	22	14.00	10.00	6.00	5.00	4.00	END
AESL-5C	22	14.00	10.00	6.00	5.00	7.00	CENTER
AESL-6C	32	12.00	12.00	12.00	6.00	6.00	CENTER
AESL-10C	22	16.00	8.00	7.00	4.00	8.00	CENTER
AESL-10E	22	16.00	8.00	7.00	4.00	4.00	END
AESL-13C	15	12.00	8.00	6.00	4.00	6.00	CENTER
AESL-15	30	16.00	12.00	8.00	6.00	4.00	END
AESL-15C	30	16.00	12.00	8.00	6.00	8.00	CENTER
AESL-15RC	30	16.00	12.00	8.00	4.00	4.00	CORNER
AESL-20	39	16.00	16.00	7.50	4.00	4.00	CORNER
AESL-22C	19	18.00	6.50	6.00	3.25	9.00	CENTER
AESL-23C	60	16.00	16.00	11.625	8.00	8.00	CENTER
AESL-24C	35	18.00	14.00	10.50	7.00	9.00	CENTER
AESL-25	39	18.00	15.00	8.00	4.00	4.00	CORNER
AESL-30	53	18.00	15.00	11.00	4.00	4.00	CORNER
AESL-30C	53	18.00	15.00	11.00	7.50	9.00	CENTER
AESL-30D *	130	37.625	15.00	11.00	4.00	4.00	CORNER
AESL-33E	64	21.00	17.00	10.00	8.50	4.00	END
AESL-45	70	21.375	15.375	10.875	4.00	4.00	CORNER
AESL-50C	53	24.00	16.00	8.00	8.00	12.00	CENTER
AESL-52	70	24.00	18.00	11.00	4.00	4.00	CORNER
AESL-54	53	25.00	15.00	8.00	4.00	4.00	CORNER
AESL-55	61	25.00	15.00	10.00	4.00	4.00	CORNER
AESL-57	80	25.00	15.00	13.63	4.00	4.00	CORNER
AESL-58	85	25.00	15.00	17.63	4.00	4.00	CORNER
AESL-59	68	28.00	15.00	12.00	4.00	4.00	CORNER
AESL-61	105	30.00	16.00	17.75	4.50	4.50	CORNER
AESL-65C	110	35.50	19.50	9.75	9.75	17.75	CENTER
AESL-68E	94	30.00	16.00	9.875	8.00	4.50	END
AESL-74C	140	30.00	17.875	17.75	8.937	15.00	CENTER
AESL-ADA-5	18	14.00	10.00	4.875	4.00	4.00	CORNER
AESL-ADA-7	20	14.00	14.00	4.875	4.00	4.00	CORNER
AESL-ADA-15	24	16.00	12.00	4.875	4.00	4.00	CORNER
AESL-ADA-25	35	18.00	15.00	4.875	4.00	4.00	CORNER
AESL-ADA-55	48	25.00	15.00	4.875	4.00	4.00	CORNER
AESL-ADA-26	43	18.00	15.00	11/4.875	4.50	4.50	CORNER
AESL-ADA-56	53	25.00	15.00	11/4.875	4.50	4.50	CORNER
*	DOUBLE BOWL SINK, 2-18" X 15" I.D. BOWLS						
	SPECIALITY SINKS						
AESL-R12	27	12.00 DIA.		7.875			CENTER
AESL-T48	42	45.562	6.375	3.500	3.188	27.125	OFF-CENTER

Sink list as of 2/5/2020 – additional sinks being added weekly





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Under-mount sinks:

SINK	Wt. lbs.	"A" DIM	"B" DIM	"C" DIM	"D" DIM	"E" DIM	DRAIN
AESU-01C	11	9.00	6.00	6.00	3.00	4.50	CENTER
AESU-5	22	14.00	10.00	6.00	5.00	4.00	END
AESU-5C	22	14.00	10.00	6.00	5.00	7.00	CENTER
AESU-6C	32	12.00	12.00	12.00	6.00	6.00	CENTER
AESU-10C	21	16.00	8.00	7.00	4.00	8.00	CENTER
AESU-10E	21	16.00	8.00	7.00	4.00	4.00	END
AESU-13C	15	12.00	8.00	6.00	4.00	6.00	CENTER
AESU-15	30	16.00	12.00	8.00	6.00	4.00	END
AESU-15C	30	16.00	12.00	8.00	6.00	8.00	CENTER
AESU-15RC	30	16.00	12.00	8.00	4.00	4.00	CORNER
AESU-20	38	16.00	16.00	7.50	4.00	4.00	CORNER
AESU-22C	18	18.00	6.50	6.00	3.25	9.00	CENTER
AESU-23C	58	16.00	16.00	11.625	8.00	8.00	CENTER
AESU-24C	35	18.00	14.00	10.50	7.00	9.00	CENTER
AESU-25	39	18.00	15.00	8.00	4.00	4.00	CORNER
AESU-30	53	18.00	15.00	11.00	4.00	4.00	CORNER
AESU-30C	53	18.00	15.00	11.00	7.50	9.00	CENTER
AESU-33E	64	21.00	17.00	10.00	8.50	4.00	END
AESU-35E	70	21.00	18.00	10.00	10.50	4.00	END
AESU-40	50	21.375	15.50	7.00	4.00	4.00	CORNER
AESU-45	70	21.375	15.375	10.875	4.00	4.00	CORNER
AESU-49	61	22.000	14.500	10.625	4.00	4.00	CORNER
AESU-50C	53	24.00	16.00	8.000	8.00	12.00	CENTER
AESU-51C	75	24.00	16.00	11.75	8.00	12.00	CENTER
AESU-52	70	24.00	18.00	11.00	4.00	4.00	CORNER
AESU-54	51	25.00	15.00	8.00	4.00	4.00	CORNER
AESU-55	61	25.00	15.00	10.00	4.00	4.00	CORNER
AESU-57	80	25.00	15.00	13.625	4.00	4.00	CORNER
AESU-58	82	25.00	15.00	17.625	4.00	4.00	CORNER
AESU-59	65	28.00	15.00	12.00	4.00	4.00	CORNER
AESU-59E	65	28.00	15.00	12.00	7.50	11.50	CENTER
AESU-61	105	30.00	16.00	17.75	4.50	4.50	CORNER
AESU-65C	105	35.50	19.50	9.75	9.75	17.75	CENTER
AESU-67C		36.00	19.75	16.00	9.875	18.00	CENTER
AESU-68E	94	30.00	16.00	9.875	8.00	4.50	END
AESU-71C	130	43.00	15.00	11.00	7.50	21.50	CENTER
AESU-73	170	38.00	20.75	19.00	5.25	5.25	CORNER
AESU-74C	140	30.00	17.88	17.75	8.937	15.00	CENTER
AESU-75C	140	42.00	20.00	10.00	10.00	21.00	CENTER
AESE-47		22.00	13.625	12.50	9.50	11.00	FRONT-CENTER
END SINK W/SPLASH							

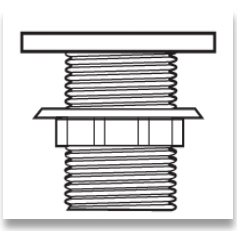
Sink list as of 2/5/2020– additional sinks being added weekly

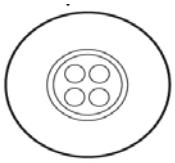
American Epoxy Scientific LLC.

Epoxy Resin Sinks

Material: All resin sinks are manufactured from the same resin material formulation as the rest of American Epoxy Scientific's resin products and meet the same chemical and physical guidelines.
Thickness: Sinks are molded in one piece with a ½" minimum thickness.
Lip Thickness: Drop-in style sinks will have a lip thickness of ¼" to allow for a stronger bond to the sink cutout
Outlet Size: All sinks shall have a standard outlet size of 3 ½"
Detail: Sinks shall have a smooth bottom that slopes 1 degree to the outlet with a 1 ½" coved radius in the bottom corners. Sinks can be modified to accept garbage disposals, fixture holes, or troughs when required.
Supports: All under mount sinks should be supported as per the furniture manufacturer's guidelines.

Sink Outlet:



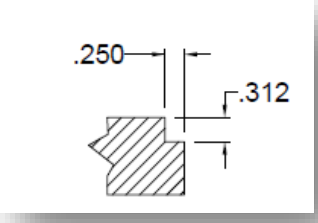


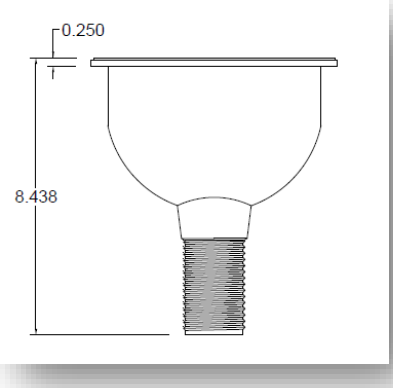
Outlet Material	Polypropylene
Outlet Colors	Black; White; Rock White; Charcoal Grey; Grey; Sand; Dark Khaki
Lock Nut	Black
Diameter	3-3/8

Cup Sink Specification

Material: Polypropylene
Color: Black; Charcoal Grey; Rock White; Sand; Dark Khaki; Brite White
Size: 3"x9" and 3"x6"
Low profile cup sinks are also available in black.
Accessories: Standard cup sink **c**overs available in polypropylene in black
Fume hood cup sink covers available in epoxy resin in matching colors to the fume hood top.

Cup sinks are also available in the same epoxy resin formulation that our work-surfaces are made from.





American Epoxy Scientific LLC.

Fume Hood Top Specifications

All of our epoxy resin fume hoods are manufactured from the same material formulation as the rest of American Epoxy Scientific's resin products and meet the same chemical and physical guidelines .

- Manufactured in one piece to fit standard fume hood cabinets, designed in conjunction with the Fume Hood manufacturer to ensure best fit, airflow and ease of installation.
- Any style fume hood can be custom made to meet laboratory designers needs
- Manufactured with a 3/8" dish to allow for containment when spills occur
- Fume Hoods are modified with pipe slots, vent slots, and cup sink cutouts to meet any fume hood cabinet design.
- Fume hood tops are available in the entire color range of our work surfaces

Box Curb Specification

- All Box curbs and loose splash is made out of the same material as the work-surfaces, giving them the same chemical and physical properties.
- Loose splash and box curbs are a standard 4" high and 1" thick unless otherwise noted in the architect drawings. Any size can be manufactured to meet the designer's needs.
- Curbs will be free of saw marks and have a 1/16" bevel applied to the top sides to prevent sharp edges.
- A specially formulated resin edge dressing shall be applied to all of the exposed edges giving the curbs a uniform look.

American Epoxy Scientific LLC.

Epoxy Resin Pegboards

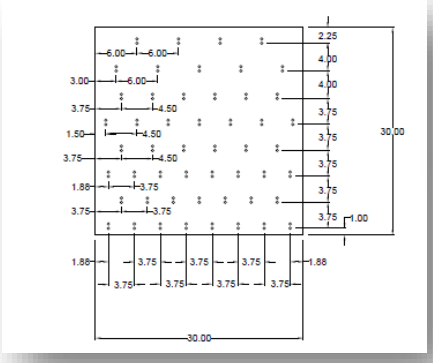
All resin pegboards are manufactured out of the same material as the rest of American Epoxy Scientific's resin products and meet the same chemical and physical guidelines .

- Pegboards come in a standard sizes as itemized below, However, any size pegboard can be manufactured to meet the designer's needs.
- Pegboards are fabricated with a 1/16" bevel on all exposed sides free of saw marks and have a special formulated edge dressing applied to all sides for a uniform look.
- If the back side of the pegboard is exposed it can be finished to give a smooth uniform appearance
- Double studded polypropylene pegs are supplied in 5", 6 ½" and 8" lengths. Pegs also have a base that will help protect all glassware being stored.
- Stainless steel drip pans can also be provided to help prevent unnecessary spills in the laboratory.

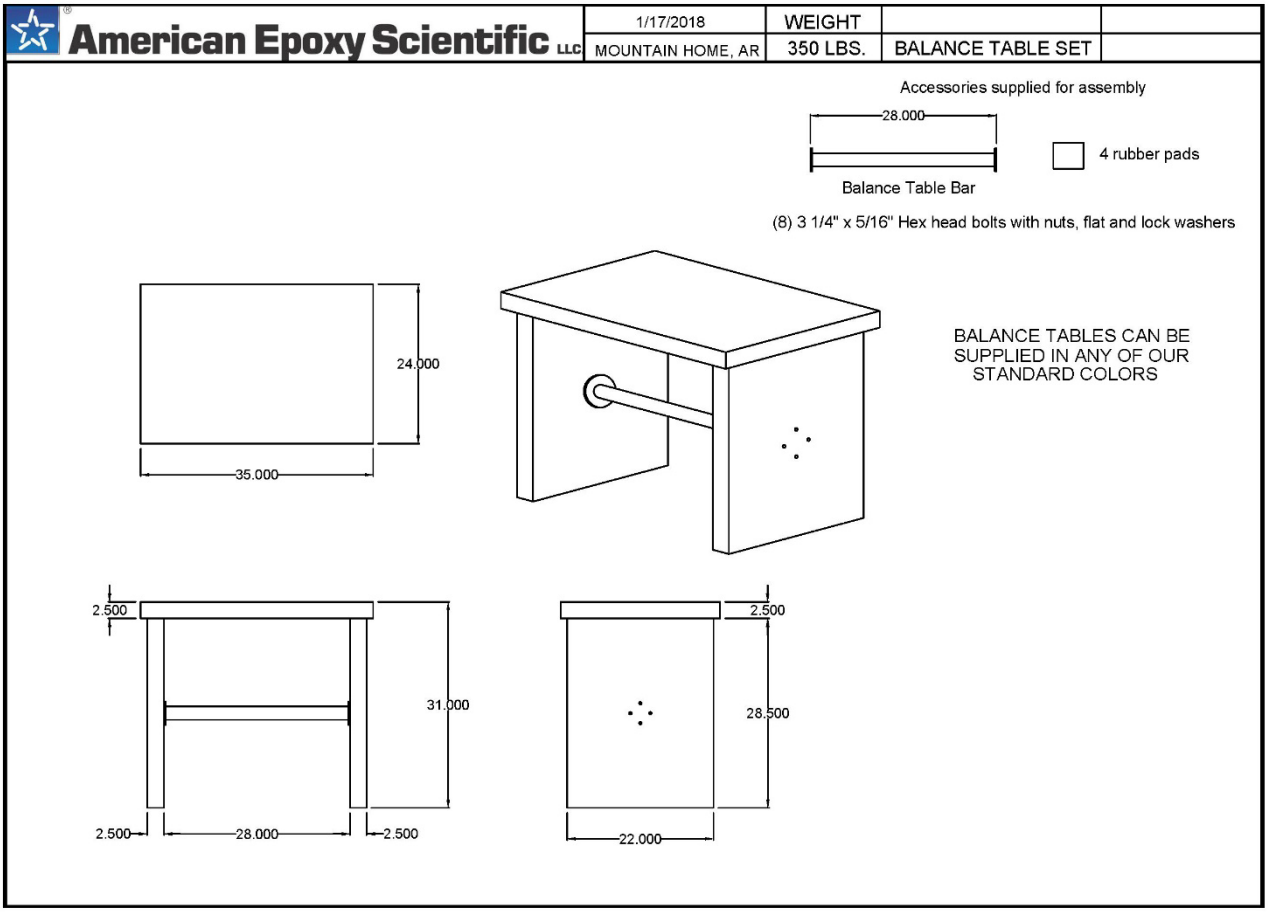
WIDTH	HEIGHT	NO OF PEGS
18	24	21
20	30	34
24	24	28
24	30	38
24	36	43
30	30	51
30	36	54
36	30	60
36	36	66
42	30	68
48	30	81
48	36	88

Specifications

Thickness	1" & ¾"
Material	Epoxy Resin
Color	Black, Charcoal Grey, Grey, Pearl, Platinum, Rock White, Sand, Sandstone, Dark Khaki, Brite White, Ocean Blue
Peg Material	Polypropylene
Peg Colors	Black, White, Grey
Peg Sizes - Lengths	5", 6-1/2", 8"
Peg Size - Diameter	0.375



Epoxy Resin Balance Tables:



All of the American Epoxy Scientific's epoxy resin balance tables are manufactured out of the same material as the rest of American Epoxy Scientific's resin products and meet the same chemical and physical guidelines .

- The balance tables are fabricated from 2-1/2" thick epoxy
- Balance tables are fabricated with a 3/16" radius on all exposed sides . The edges are also free of saw marks and have a special formulated edge dressing applied to all sides for a uniform look.
- Standard size is 24" by 35"
- Superior load bearing capability
- Balance table bar is fabricated from steel and coated black

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Epoxy Resin Down to a Science

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