



Epoxy Resin

Part 1 – Specifications for Modified Epoxy Resin

Tops and curbs shall be molded from a modified epoxy resin that has been especially compounded and cured to provide optimum physical and chemical resistance required for a heavy duty laboratory working surface. Impregnated stone and/or furane resins are not equal. Tops and curbs shall be a uniform mixture throughout, and shall not depend on a surface coating that can be readily removed by chemical or physical abuse.

Tops and curbs shall be non-glaring matte finish and black in color.

Tops shall be a thickness as required with a drip groove provided on underside of all sink top exposed edges. All edges shall have a slight radius.

Curbs shall be bonded to the surface on the top to form a square water-tight joint. All joints in tops to be bonded with an approved epoxy cement and shall be smooth and water-tight.

Counters with integral curbs shall have a junction with a $\frac{3}{4}$ " radius, except around columns and special cutouts, which will have a standard bonded curb.

Part 2 – Chemical Resistance

Epoxy Resin is highly resistant to the normally used laboratory alkalis, alcohol, acids and solvents. The following solutions listed were tested for a period of 24 hours with optimum resistance.

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| Acetic Acid Glacial | Chloroform | Methyl Alcohol |
| Acetone | Chromic Acid | Nitric Acid |
| Ammonium Hydroxide | Ethyl Alcohol | Phenol |
| Amyl Acetate | Ethyl Ether | Phosphoric Acid |
| Aqua Regia | Formaldehyde | Silver Nitrate |
| Benzene | Hydrochloric Acid | Sodium Hydroxide |
| Butyl Alcohol | Hydrofluoric Acid | Sulphuric Acid |
| Calcium Hypochlorite | Hydrogen Peroxide | Xylene |
| Carbon Disulfide | Kerosene | Zinc Chloride |

Part 3 – Physical Properties

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| Flexural Strength | ASTM-Method D-790 | 16000/psi |
| Compressive Strength | ASTM-Method D-695 | 36,500/psi |
| Hardness Rockwell M | ASTM-Method D-785 | 110 |
| Density Gr./CC. | ASTM-Method D-792 | 123.55 lbs/ft ³ |
| Water Absorption | ASTM-Method D-570 | 0.0076% |
| Flame Test | ASTM-Method D-635 | Self-extinguishing |



Part 4 – Fire Resistance

A Bunsen burner overturned on working surface for several minutes causes no adverse effects. Epoxy resin is self-extinguishing, in accordance with ASTM-Method D-635. Independent laboratory test reports available upon request.