PERFORMANCE TESTING
EPOXY RESIN

SEFA RECOMMENDED CHEMICAL & STAIN RESISTANCE TESTING

CHEMICAL Tested	TEST method	RATING
Acetate, Amyl	A	0
Acetate, Ethyl	A	0
Acetic Acid 98%	B	0
Acetone	A	1
Acid Dichromate 5%	B	0
Alcohol, Butyl	A	0
Alcohol, Ethyl	A	0
Alcohol, Methyl	A	1
Ammonium Hydroxide 28%	B	0
Benzene	A	1
Carbon Tetrachloride	A	0
Chloroform	A	1
Chromic Acid 60%	B	0
Cresol	A	0
Dichloroacetic Acid	A	0
Dimethylformanide	A	0
Dioxane	A	0
Ethyl Ether	A	0
Formaldehyde 37%	A	0
Formic Acid 90%	B	0
Furfural	A	1
Gasoline	A	0
Hydrochloric Acid 37%	B	0
Hydrofluoric Acid 48%	B	0
Hydrogen Peroxide 28%	B	0
Iodine, Tincture of	B	0
Methyl Ethyl Ketone	A	0
Methylene Chloride	A	0
Monochlorobenzene	A	0
Naphthalene	A	0
Nitric Acid 20%	B	0
Nitric Acid 30%	B	1
Nitric Acid 70%	B	1
Phenol 90%	A	0
Phosphoric Acid 85%	B	1
Silver Nitrate, Saturated	B	0
Sodium Hydroxide 10%	B	1
Sodium Hydroxide 20%	B	1
Sodium Hydroxide 40%	B	1
Sodium Hydroxide, Flake	B	1
Sodium Sulfide, Saturated	B	2
Sulfuric Acid 25%	B	1
Sulfuric Acid 85%	B	2
Sulfuric Acid 96%	B	3
Sulfuric Acid 85% & Nitric Acid 70%, Equal Parts	B	3
Toluene	A	1
Trichloroethylene	A	0
Xylene	A	0
Zinc Chloride, Saturated	B	0

TEST METHOD A

For volatile chemicals. A cotton ball is saturated with the test chemical and placed in a one ounce container (10mm x 75mm test tube or similar container). The container is inverted on the test material surface for a period of 24 hours. Temperature of test: 73° +/-4°F (23° +/-2°C). This method is used for the organic solvents.

TEST METHOD B

For non-volatile chemicals. Five drops (1/4 cc) of the test chemical are placed on the test material surface. The chemical is covered with a watch glass (25mm) for a period of 24 hours. Temperature of test: 73° +/-4°F (23° +/-2°C). This method is used for all chemicals listed other than solvents.

RATING

After 24-hours of exposure, areas are washed with water, then a detergent solution, and finally with isopropyl alcohol. Materials are then rinsed with distilled water and dried with a cloth. Samples are numerically rated as:

0 = No effect, 1 = Excellent, 2 = Good, 3 = Fair

PHYSICAL & FIRE TESTING

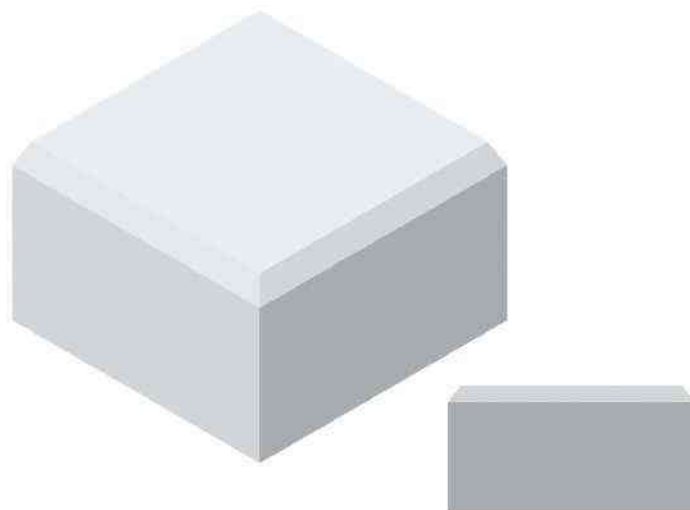| TEST Identification	TEST Description	RESULTS [imperial]	RESULTS [metric]
ASTM D785-08	Rockwell Hardness	110 [M scale]	110 [M scale]
ASTM D696-03	Linear Thermal Expansion	$1.18\text{x }10^{-5}$ in/in°F	$2.12\text{x }10^{-5}$ mm/mm°C
ASTM D570-98	Water Absorption	0.008% [after 24 hours]	0.008% [after 24 hours]
ASTM D790-07	Flexural Strength	14.9 kpsi	103 MPa
ASTM D792-00	Density	133 lb/ft^3	2.13 g/cm^3
ASTM D695-02	Compressive Strength	33.5 kpsi	231 MPa
ASTM D635-06	Fire Resistance	Self-extinguishing	Self-extinguishing
ASTM D3801-00	Burning Characteristics Sample as Received	30 seconds max burning time	30 seconds max burning time
ASTM D3801-00	Burning Characteristics Samples Heat Aged	41 seconds max burning time	41 seconds max burning time
ASTM D648-07	Heat Distortion Temperature	380°F	194°C
ASTM E84	Flame Spread Index	5 [Class A]	5 [Class A]
ASTM E84	Smoke Developed Index	185 [Class A]	185 [Class A]
ASTM E84	Time to Ignition	4 min 53 sec	4 min 53 sec
ASTM E84	Max Flamespread Distance	3.69 ft	112 cm
ASTM E84	Time to Maximum Spread	9 min 55 sec	9 min 55 sec

SUSTAINABILITY

Durcon is a member of the United States Green Building Council (USGBC) and our worksurfaces meet various Leadership in Energy and Environmental Design (LEED) standards, which may contribute toward LEED Certification. Durcon products can contribute to the following LEED credits:

Credit MR 5.1 & 5.2 Point of Manufacture / Point of Extraction
Credit EQ 4.1 VOC Content (Health Care & School Buildings)
Credit MR 4.1 & 4.2 Recycled Content (Greenstone)
Credit MR 3.1 & 3.2 Material Reuse

BEVEL EDGE FINISH

One inch thick Black Onyx ClassicTop worksurfaces with machine beveled edges are the laboratory industry global standard. Bevel edges are available in seamless lengths up to 96" [2438mm] on our ClassicTop worksurfaces and provide the greatest flexibility for many applications.

Black Onyx