

# TECH DATA

Wilsonart® Solid Surface  
Chemical Resistance



## Technical Brief - Chemical Resistance

### 1. Background:

Wilsonart Solid Surfaces® have been used in a variety of laboratory applications because of their appearance, functionality, outstanding performance properties, and design flexibility. Successful applications have included medical, biological, analytical, and academic laboratories. Changes in modern laboratory design have created expanded opportunities for Wilsonart Solid Surfaces® to be utilized in laboratory settings. Stricter health and safety regulations have increased the amount of space allocated to fume hood areas in laboratories, thereby, shrinking the “laboratory bench” and the need for traditional worktops. In addition to the increased health and safety requirements, today’s laboratories must be able to easily accommodate computers, analytical equipment, and workstations for technicians. These changes have made Wilsonart Solid Surfaces® an attractive choice for a broader range of laboratory applications.

One of the major factors that must be considered when selecting a laboratory work surface is the chemical resistance of the product compared to the requirements for the particular application. Because Wilsonart Solid Surfaces® are renewable products; both the surface effect of a chemical reagent and the ease of repair must be considered in order to properly evaluate work surfaces. This Technical Brief is intended to summarize the chemical resistance of Wilsonart Solid Surfaces® and evaluate their applicability for laboratory worktop environments.

### 2. Test Procedure:

Various samples of Wilsonart Solid Surfaces® including light, dark, solid, and particulate colors were tested for resistance to chemical exposure. A small amount of each of the reagents listed below was applied to the surface of each test sample and covered with a 1-inch diameter concave watch glass. After an exposure time of 16-24 hours, the samples were cleaned and evaluated successively using the following steps: (1) Water and/or Commercial Cleaner (i.e. 409®, Fantastik®, etc.), (2) Maroon Scotch-Brite® (7447) and Water. Please see the attached results.

### 3. Conclusion:

The test results document the chemical resistance and maintainability of Wilsonart Solid Surfaces® when subjected to a wide variety of reagents. As the test results demonstrate, Wilsonart Solid Surfaces® can be specified for laboratory use in areas where the harshest chemicals (i.e. strong acids, strong bases, chlorinated solvents) are not employed or are used only under a fume hood. Applications for the products include environments such as medical, biological, and academic/science laboratories. In addition to these laboratory applications, the product can be used in many customer-oriented/retail operations such as dental offices, hair salons, and photo processing establishments. Please note that when in doubt about a certain reagent or application, it is best to pre-test a piece of Wilsonart Solid Surfaces® in order to ensure suitability.

# TECH DATA

Wilsonart® Solid Surface  
Chemical Resistance

## Test Results:

The following chemical reagents can be removed with water and/or commercial cleaner:

Alconox	Formalin	Sodium Azide
Ammonium Hydroxide	Glutaraldehyde	Sodium Chromate
Aromatic Ammonia	n-Hexane	Sodium Hypochlorite
Benedict's Solution	Hydrogen Peroxide 3%	Sodium Thiocyanate
Butyl Alcohol	Kerosene	Sucrose 50%
Calcium Hypochlorite	Lactated Ringers Solution	Trisodium Phosphate 30%
Carbon Disulfide	Mineral Oil	Urea
Carbon Tetrachloride	Monse's Solution	Uric Acid
Copper Sulfate	Naphtha	Vegetable Oil
EDTA	Naphthalene	Water (distilled)
Ethylene Glycol	Petroleum Jelly	Zephiran Chloride
Eucalyptol	Phosphate Buffered Saline	Zinc Chloride
Formaldehyde	Povidone Iodine	Zinc Oxide Ointment

The following chemical reagents can be removed with a Maroon Scotch-Brite® (7447) and water:

Acetone	Hair Dye	Safranin O
Ag Eosin Blue 5% in Alcohol	Iodine	Silver Nitrate
Aluminon	Karl Fischer Reagent	Sodium Sulfide 15%
Ammonium Phosphate	Lysol	Sudan III
Amyl Acetate	Malachite Green	Tannic Acid
Amyl Alcohol	Methanol	Tetrahydrofuran
Blue Washable Ink	Methylene Blue	Thymol & Alcohol
Bromothymol Blue	Methyl Ethyl Ketone	Thymol Blue
Cellosolve	Methyl Methacrylate	Tincture of Iodine
Cresol Red	Methyl Orange	Tincture of Mercurochrome
Crystal Violet	Methyl Red	Tincture of Merthiolate
Dimethylformamide	Nigrosine	Toluene
Dioxane	Phenolphthalein	Trichloroethane
Ethyl Acetate	Pine Oil	Wright's Blood Stain
Ethyl Alcohol	Potassium Permanganate	Xylene
Gentian Violet	Procaine	
Gram Stains	Quaternary Ammonia Compounds	

# TECH DATA

Wilsonart® Solid Surface  
Chemical Resistance



The effect of some reagents may require further refinishing efforts in order to be removed. The refinishing effort required will depend on the concentration, temperature, and length/frequency of exposure. Contact with the chemical reagents listed below should be avoided if possible.

Acetic Acid (98%)	Formic Acid (91%)	Phenol
Aqua Regia	Glacial Acetic Acid (98%)	Phosphoric Acid (87%)
Camphorated para-chlorophenol	Hydrochloric Acid (38%)	Picric Acid 1.2% (0.05M)
Chlorobenzene	Hydrofluoric Acid (50%)	Sodium Hydroxide (50%)
Chloroform	Methylene Chloride	Sulfuric Acid (95%)
Chromic Trioxide	Nitric Acid (72%)	
Cresol	Perchloric Acid (70%)	

## 4. Customer Services

For samples, literature, questions or technical assistance, please contact our toll-free Hotline at (800) 433-3222, Monday through Friday, 7 am – 7 pm, CST.