

ASAHI GUARD

for Stone and Tile

Rock-Solid Stain Protection



AGC

Your Dreams, Our Challenge



Rock-Solid Stain Protection

Decorative and functional stone and tile add aesthetic value throughout both the interior and exterior of building structures. Countertops, flooring, patios, walkways, walls, hearths, backsplashes, fireplaces, and pool aprons are just a few of the applications that incorporate these materials and add value to any property.

AsahiGuard™ for Stone and Tile, now available from AGC Chemicals, provides the broadest and most effective deterrent to liquid stains that can spoil the appearance of both porous and polished stone and tile. AGC Chemicals is a leading global supplier of a wide array of high performance fluorochemicals, including resins, compounds, elastomers, specialty chemicals and materials.

AsahiGuard for Stone and Tile is a line of high-performance fluorinated water and oil repellents providing protection against food, beverage, oil, and water spills. The products use environmentally-friendly fluoropolymers dispersed in water to repel liquids by forming a low-energy surface coating on the material to which it is applied. The coated surface becomes energetically favorable to resist and repel most common stains.



Benefits and Attributes

- Surface protection against stains
- Gives longevity and durability to surfaces
- High performance sealant with one application
 - Factory or field applied with brush or roller
 - Non-flammable, non-corrosive
 - High compatibility
 - Improves aesthetics
 - Non-odorless
 - Breathability

Tech Center

Fully equipped Technical Service Center providing a variety of services and testing including:

- Oil/water repellency
- Stain resistance
- Cleanability
- Formulation recommendations and development
- On-site support for product trials

Stain Repellency Results







Polished	Beading													% Easy Clean Factor
	Water	Oil	Red Wine	Coffee	Mustard	Ketchup	Blue Ink	Mayonnaise	Motor Oil	Soda	Suntan Lotion	Olive Oil	Sum	
Untreated	3	1	3	2	3	3	3	1	0	2	1	0	18	55%
AG-E01ST/MS	3	2	2	1	2	2	2	1	0	2	1	0	13	68%
AG-E03ST/MS	3	3	2	1	2	2	2	1	0	2	1	0	13	68%
AG-E03ST/H2O	4	3	1	0	1	1	1	0	0	1	1	0	6	85%
AG-E11ST/H2O	4	3	1	1	1	1	1	1	0	1	0	0	7	83%
AG-E06ST/H2O	3	2	2	1	2	2	1	1	0	2	1	0	12	70%

Porous	Beading		Repellency													%Easy Clean Factor
	Water	Oil	Water	Oil	Red Wine	Coffee	Mustard	Ketchup	Blue Ink	Mayonnaise	Motor Oil	Soda	Suntan Lotion	Olive Oil	Sum	
Paver																
Untreated	0	0	0	0	1	0	0	0	4	1	3	0	3	2	14	65%
AG-E01ST/MS	4	4	8	4	0	0	0	0	2	0	1	0	1	1	5	88%
Saltillo (Terra Cotta)																
Untreated	0	0	0	0	1	3	4	3	4	4	4	0	4	4	31	23%
AG-E01ST/H2O	5	3	8	6	0	0	0	0	1	0	2	0	0	1	4	90%
AG-E02ST/H2O	4	3	8	6	0	0	0	0	1	0	1	0	1	0	3	93%
AG-E03ST/H2O	3	3	8	6	0	0	1	0	1	0	1	0	1	0	4	90%
AG-E04ST/H2O	4	3	8	6	0	0	0	0	1	0	0	0	2	1	4	90%

%ECF = Easy Clean Factor = $(40 - \sum \text{scores}) / 40 \times 100\%$

MS = Odorless Mineral Spirits

Data Score Keys

	5	Excellent Contact Angle 100-120°
	4	Very Good Contact Angle 75-90°
	3	Good Contact Angle 45-75°
	2	Fair Contact Angle 25-45°
	1	Poor Contact Angle 10-25°
	0	Penetration

Water Repellency

Chart Score = Highest Liquid That Does Not Penetrate

Test Solution #	DI Water (% Vol.)	Isopropanol (% Vol.)	Surface Tension (mN/m)
1	98	2	59.0
2	95	5	49.8
3	90	10	41.6
4	80	20	32.5
5	70	30	27.4
6	60	40	25.4
7	50	50	24.5
8	40	60	24.0
9	30	70	23.4
10	20	80	22.7
11	10	90	21.9
12	0	100	21.8

Oil Repellency

Chart Score = Highest Liquid That Does Not Penetrate

Test Solution #	Description	Surface Tension (mN/m)
1	100% Mineral Oil	31.5
2	65% Mineral Oil/35% n-Hexadecane	29.2
3	n-Hexadecane	27.3
4	n-Tetradecane	26.2
5	n-Dodecane	24.2
6	n-Decane	23.6
7	n-Octane	21.8
8	n-Heptane	19.7

Stain Rating Performance After Drying

0	1	2	3	4	5
No visible stain	Slight stain perceptible	Visible stain without clearly defined outline	Stain with a clearly defined outline, but not very deep in color	Stain with a clearly defined outline, deep in color	Deep stain that clearly penetrated the fabric to substrates

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