

LG HI-MACS® enhances the elegance and harmony of your living environment with natural beauty and the synthesis of design and creativity.

FEATURES

1. Wide spectrum of color and pattern choices.
2. Stain and chemical resistance.
3. Non-porous surfaces (does not support fungal or bacterial growth).
4. Effortless fabrication and seamless installation.

APPLICATIONS

Kitchen Tops, Vanity Tops, Wall Decorations, Laboratory Tables, Working Tables, Office Desks, Commercial Interiors.

SPECIFICATIONS (Unit: Inches)

Thickness	Width	Length
1/4"	30" *36"	98", *120" 98"
*3/8"	30" *36"	*120", *145" *120"
1/2"	30" *36"	*120", *145" *120", *145"

*3/8" thickness and 36" width products are available as special order only. Minimum order requirements apply.

Table 1. Summary of ISSFA Testing for Performance Properties

Report of results for LG HI-MACS on Arctic White (Sample #010803001-002) and Ivory Quartz (Sample #010803003-004)

Anaylysis	Arctic White	Ivory Quartz
Consistency of Color (Same Sheet) ISSFA SST 2.1-00	Pass	Pass
Cleanability Stain Rating ISSFA SST 3.1-00	30 (17/13)	14 (7/7)
Visual Defects ISSFA SST 5.1-00	Pass	Pass
Light Resistance ISSFA SST 7/1-00	No Effect - Pass	No Effect - Pass
Boiling Water Resistance ISSFA SST 8.1-00 (referencing NEMA LD3-3.5)	No Effect - Pass	No Effect - Pass
High Temperature Resistance ISSFA SST 9.1-00 (referencing NEMA LD3-3.6)	No Effect - Pass*	No Effect - Pass

* after cleaning with water, abrasive cleaning powder containing bleach and a Scotch-Brite® #7447 pad.

Table 2. Summary of ISSFA Testing for Engineering Properties

Report of results for LG HI-MACS on Arctic White (Sample #010803001-002) and Ivory Quartz (Sample #010803003-004)

Analysis	Arctic White	Ivory Quartz
Radiant Heat Resistance NEMA LD3-3.10	600+ seconds Pass	600+ seconds Pass
Linear Thermal Expansion (ASTM E 228-95)	3.81 x 10 ⁻⁵ mm/mm °C (2.12 x 10 ⁻⁵ in./in. °F) Pass	3.71 x 10 ⁻⁵ mm/mm °C (2.06 x 10 ⁻⁵ in./in. °F) Pass
Flexural Strength (PSI) (ASTM D-790-99)	78.77 Mpa (11,424 PSI) Pass	64.75 Mpa (9,391 PSI) Pass
Flexural Modulus (MPSI) (ASTM D 790-99)	9239 Mpa (1.34 MPSI) Pass	9584 Mpa (1.39 MPSI) Pass
Barcol Hardness (ASTM D 2583)	65 Pass	65 Pass
Flatness of Sheets ISSFA SST 4.1-00	Length - <0.25 mm (<0.010 in.) Positive Warp Width - 0.50 mm Pass	Length - <0.85 mm (0.033 in.) Positive Warp Width - 0.80 mm (0.031 in) P
Impact Resistance ISSFA SST 6.1-00	Pass at 1525 mm (60 in.) Thickness = 0.46450 in.	Pass at 1525 mm (60 in.) Thickness = 0.47800 in.

Table 3. Cleanability / Stain Resistance - Arctic White

Report of results for LG HI-MACS on Arctic White (Sample #010803001-002) and Ivory Quartz (Sample #010803003-004)

Reagent	Score: Covered / Not Covered by Watchglass	Visual Effect
Naphtha	0/0	No Effect
Ethyle Alcohol (90% v/v)	1/1	No Effect
Household Amonia	0/0	No Effect
Citric Acid (10% w/v)	0/0	No Effect
Povidone Iodine, 10%	0/0	No Effect
Urea (6% w/v)	0/0	No Effect
Hydorgen Peroxide Solution, 3%	0/0	No Effect
Household Bleach (5% ± 0.5% aqueous solution of Sodium Hypochlorite	0/0	No Effect

Fingernail Polish Remover	2/0	No Effect
Trisodium Phosphate (5% w/v)	0/0	No Effect
Vinegar	0/0	No Effect
Distilled Water	0/0	No Effect
No. 2 Pencil	1/1	No Effect
Vegetable Oil	0/0	No Effect
Isopropyl Alcohol (90% v/v)	0/0	No Effect
Lye Solution (1-2% w/v)	0/0	No Effect
Pine Oil	0/0	No Effect
Instant Coffee (1tsp instant coffee per 6oz. (170ml) of water)	1/1	No Effect
Catsup	0/0	No Effect
Prepared Yellow Mustard	1/1	No Effect
Wet Pekoe Tea Bag (6oz. (170ml) of water)	2/2	No Effect
Acetone	2/0	No Effect
Permanent Marker (contrasting colors)	2/2	No Effect
Ball Point Ink Pen (medium point-contrasting colors)	2/2	No Effect
Black Paste Shoe Polish	2/2	No Effect
Wax Crayon	1/1	No Effect
Total	17/13 = 30	

Table 4. Cleanability / Stain Resistance - Ivory Quartz
 Report of results for LG HI-MACS on Arctic White (Sample #010803001-002) and Ivory Quartz (Sample #010803003-004)

Reagent	Score: Covered / Not Covered by Watchglass	Visual Effect
Naphtha	0/0	No Effect
Ethyle Alcohol (90% v/v)	0/0	No Effect

Household Amonia	0/0	No Effect
Citric Acid (10% w/v)	0/0	No Effect
Povidone Iodine, 10%	0/0	No Effect
Urea (6% w/v)	0/0	No Effect
Hydorgen Peroxide Solution, 3%	0/0	No Effect
Household Bleach (5% ± 0.5% aqueous solution of Sodium Hypochlorite	0/0	No Effect
Fingernail Polish Remover	0/0	No Effect
Trisodium Phosphate (5% w/v)	0/0	No Effect
Vinegar	0/0	No Effect
Distilled Water	0/0	No Effect
No. 2 Pencil	1/1	No Effect
Vegetable Oil	0/0	No Effect
Isopropyl Alcohol (90% v/v)	0/0	No Effect
Lye Solution (1-2% w/v)	0/0	No Effect
Pine Oil	0/0	No Effect
Instant Coffee (1tsp instant coffee per 6oz. (170ml) of water)	0/0	No Effect
Catsup	0/0	No Effect
Prepared Yellow Mustard	0/0	No Effect
Wet Pekoe Tea Bag (6oz. (170ml) of water)	1/1	No Effect
Acetone	0/0	No Effect
Permanent Marker (contrasting colors)	2/2	No Effect
Ball Point Ink Pen (medium point-contrasting colors)	1/1	No Effect
Black Paste Shoe Polish	1/1	No Effect
Wax Crayon	1/1	No Effect

Total

7/7 = 14

Table 5. Visual Defects - ISSFA SST 5.1

Report of results for LG HI-MACS on Arctic White (Sample #010803001-002) and Ivory Quartz (Sample #010803003-004)

Sample	Arctic White	Ivory Quartz
Dirt-Show Side	1 at 0.020 (sq.mm) Pass	None, Pass
Voids-Show Side	1 at 0.025 mm (0.001in.) Pass	None, Pass
Voids-Backside mm (in.)	1 at 0.025 (0.001 in.) Pass	1 at 0.127 (0.005 in.) Pass
Light Resistance ISSFA SST 7/1-00	No Effect - Pass	No Effect - Pass

Stain Resistance/Chemical Resistance

Classification	Results
Water marketing pen (black), coffee, tea, whisky, milk, distilled liquor, edible oil, urine, 10% iodine fluid, etc. *	Removing with water
Crayon, water, marking pen (red), lipstick, etc. *	Removing with neutral detergents
Oil marketing pen, eye brow pencil, etc. *	Removing with cleanser
Cloric Acid (20%) **	No Change
Sulfuric Acid (20%) **	No Change
Ammonia (28%) **	No Change
Sodium Hydroxide (40%) **	No Change
Methyl Alcohol **	No Change
Toluene **	No Change
Xylene **	No Change

* Test Time: 24 hours

** Test Time: 16 hours (KSM 307)