

TECHNICAL SPECIFICATIONS

SR. NO.	PROPERTIES	UNIT	TEST METHOD AS PER EN 438 PART 2 & 4 : 2016	SPECIFIED VALUES	SAMRAT RESULTS	SPECIFIED VALUES	SAMRAT RESULTS	SPECIFIED VALUES	SAMRAT RESULTS	SPECIFIED VALUES	SAMRAT RESULTS	SPECIFIED VALUES	SAMRAT RESULTS	SPECIFIED VALUES	SAMRAT RESULTS	SPECIFIED VALUES	SAMRAT RESULTS
	Nominal Thickness	mm		18.0		12.0		10.0		9.0		8.0		6.0		4.0	
1	Classification		EN 438-4 - 4	General Purpose Standard, CGS													
2	Thickness	mm	EN 438-2 - 5	18.0±0.70	Complies	12.0±0.50	Complies	10.0±0.50	Complies	9.0±0.50	Complies	8.0±0.50	Complies	6.0±0.40	Complies	4.0±0.30	Complies
3	Resistance to Dry Heat at 160° C	Rating	EN 438-2 - 16	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5
4	Length & Width	mm	EN 438-2 - 6	+10mm/-NIL	Complies	+10mm/-NIL	Complies	+10mm/-NIL	Complies	+10mm/-NIL	Complies	+10mm/-NIL	Complies	+10mm/-NIL	Complies	+10mm/-NIL	Complies
5	Resistance to Surface Wear, Initial Point	Rev	EN 438-2 - 10	150 (min)	Complies	150 (min)	Complies	150 (min)	Complies	150 (min)	Complies	150 (min)	Complies	150 (min)	Complies	150 (min)	Complies
6	Resistance to Immersion in Boiling Water (2 hours)		EN 438-2 - 12														
	Mass increase	%		2.0 (max)	0.20	2.0 (max)	0.24	2.0 (max)	0.29	2.0 (max)	0.31	2.0 (max)	0.39	2.0 (max)	0.64	2.0 (max)	0.94
	Thickness increase	%		2.0 (max)	0.60	2.0 (max)	0.68	2.0 (max)	0.78	2.0 (max)	0.84	2.0 (max)	0.95	2.0 (max)	1.12	2.0 (max)	1.48
7	Appearance	Rating		Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5
	Dimensional Stability at Elevated Temperature		EN 438-2 - 17														
Longitudinal direction	%	0.30 (max)		0.06	0.30 (max)	0.08	0.30 (max)	0.10	0.30 (max)	0.11	0.30 (max)	0.12	0.30 (max)	0.16	0.30 (max)	0.28	
Transverse direction	%	0.60 (max)	0.14	0.60 (max)	0.15	0.60 (max)	0.19	0.60 (max)	0.21	0.60 (max)	0.25	0.60 (max)	0.29	0.60 (max)	0.38		
8	Resistance to impact by long diameter ball		EN 438-2 - 21														
	Drop height	mm		1800	1900	1800	1900	1800	1900	1800	1900	1800	1900	1800	1900	1800	1900
	Diameter of indentation	mm		10 (max)	7	10 (max)	7	10 (max)	8	10 (max)	8	10 (max)	8	10 (max)	8	10 (max)	8
9	Resistance to Scratching	N	EN 438-2 - 25	2.0 (min)	2.5	2.0 (min)	2.5	2.0 (min)	2.5	2.0 (min)	2.5	2.0 (min)	2.5	2.0 (min)	2.5	2.0 (min)	2.5
10	Resistance to Staining		EN 438-2 - 26														
	Group 1 & 2	Rating		5	5	5	5	5	5	5	5	5	5	5	5	5	5
	Group 3	Rating	4	≥ 4	4	≥ 4	4	≥ 4	4	≥ 4	4	≥ 4	4	≥ 4	4	≥ 4	
11	Resistance to wet heat at 100° C	Rating	EN 438-2 - 16	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5
12	Light fastness - Xenon Arc light	Rating	EN 438-2 - 27	4 to 5	Complies	4 to 5	Complies	4 to 5	Complies	4 to 5	Complies	4 to 5	Complies	4 to 5	Complies	4 to 5	Complies
13	Resistance to crazing	Rating	EN 438-2 - 24	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5	Not Worse than 4	5
14	Flexural Modules	Mpa	EN ISO 178:2003	9000 (min)	Complies	9000 (min)	Complies	9000 (min)	Complies	9000 (min)	Complies	9000 (min)	Complies	9000 (min)	Complies	9000 (min)	Complies
15	Flexural Strength	Mpa		80 (min)	Complies	80 (min)	Complies	80 (min)	Complies	80 (min)	Complies	80 (min)	Complies	80 (min)	Complies	80 (min)	Complies
16	Density	g/cm ³	EN ISO 1183-1 : 2004	1.35 (min)	1.4	1.35 (min)	1.4	1.35 (min)	1.4	1.35 (min)	1.4	1.35 (min)	1.4	1.35 (min)	1.39	1.35 (min)	1.39

High Pressure Laminate Care & Maintenance

The hard, durable melamine surface of decorative high pressure laminates (HPL) will maintain its attractive appearance longer than most decorative surfacing materials. Decorative high pressure laminates require minimal maintenance under normal use and conditions.

Routine Cleaning

High pressure laminates can usually be wiped clean with just a damp cloth or sponge using a mild soap, non-bleach detergent, or a general-purpose cleaner. Ammoniated and/or vinegar-based glass cleaners are best for cleaning surfaces soiled by grease. Abrasive cleaners/ powders and metal or abrasive-coated scouring pads should not be used on most laminates as they may permanently dull and scratch the laminate and make it more susceptible to staining.

Food Stains

Though most spills are easily wiped away, certain food stains such as tea, food dyes, fruit drinks, or coffee may be more difficult to remove. A thorough cleaning using mild cleaner, detergent, or general-purpose cleaner and a short soft-bristle nylon brush is recommended for removing stains. This procedure will also remove water marks, glass rings, and greasy fingerprints.

Ink Stains/Pencil Marks

Stains from pencil marks and inks such as felt-tipped pens, food-pricing labels, textile dyes, newspaper print, and other indelible inks can sometimes transfer to the laminate surface and could become permanent. In order to reduce the risk of permanent damage, stains should be removed as quickly as possible. If necessary, use full-strength detergent or a glass spray cleaner. Allow cleaner to remain on the stain for several minutes, blot with a damp cloth, and then rinse. If stubborn stains persist, a solvent - such as denatured alcohol, fingernail polish remover, mineral spirits, or paint thinner - may be used. Several applications may be needed. Follow with routine cleaning and rinsing procedures.

Chemical Stains

High pressure laminates resist many chemicals, including alcohol, paint thinners, most cosmetics, and drugs. However, care must be exercised when using bleaches, hair dyes, rinses, bluing, drain cleaners, and full-strength detergents for automatic dishwashers as these chemicals can cause permanent stains. Take precautions to protect your laminate surface from chemicals commonly found in rust removers, metal/oven cleaners, and drain/toilet bowl cleaners. Never put these cleaners on laminate surfaces. Accidental spills should be wiped off immediately and the area rinsed thoroughly to prevent permanent etching or discoloration of the surface.

Paint & Adhesive Stains

Varnish, lacquer, and oil-based paints can be removed from laminate by thorough cleaning using proper solvent or paint remover (Caution: Most solvents are extremely flammable.) Solvents will damage real wood finishes; be careful not to splash on cabinets or other wood surfaces. Water-based paints are best removed with an ammoniated household detergent. If spots have dried and are especially stubborn, a plastic (non-metallic), non-abrasive scouring pad may be used. Super Glue™ adhesive can be removed with nail polish remover or Acetone.

Abrasives & Harsh Chemicals

Abrasive cleaners and pads may permanently dull and scratch the laminate surface. Harsh chemicals such as oven cleaner, Toilet cleaner, rust remover, ceramic cook-top cleaners, or drain cleaner will discolor and/or etch the surface of decorative high pressure laminates. This includes any cleaners containing acid, alkali, or sodium hypochlorite (bleach). If any of these products are spilled on the surface of the laminate, remove immediately, rinse thoroughly with water, and wipe dry.

Hot Objects

Cookware still hot from the stove or oven should not be placed directly on the laminate surface. While high pressure laminates are heat resistant, exposure to temperatures above 135°C (275°F) is not recommended.

Sharp Objects

Never use sharp objects such as knives directly on the surface of decorative high pressure laminates. Use a chopping block or cutting board.

