surface materials
The ultimate in interior finish products.

(440) 248-0000
6655 parkland boulevard
solon, ohio 44139
(440) 519-1950 fax
www.surfacematerials.com

OCTOLAM®

DECORATIVE LAMINATES

PLASTIC LAMINATES

TECHNICAL DATA

October 25, 2021

1. Distributor

Surface Materials
6655 Parkland Blvd
Solon,OH 44139
Tel: 440-248-0000

2. PRODUCT DESCRIPTION

Uses: OCTOLAM decorative laminates are supplied for both residential and commercial use. OCTOLAM decorative laminates are suitable for application to interior surfaces where a decorative wear stain and impact resistant surface is required. Depending on the particular laminate chosen applications can include countertops, tabletops, furniture, vanities, store fixtures, wall panels, laminate doors and cabinets, partitions, and elevator cabs. Please note that not all laminates are suitable for horizontal applications. Octopus supplies a wide range of laminates from around the world in various grades. Please contact our office to determine the specific grade for the laminate you have chosen.

Limitations: OCTOLAM decorative laminates are not recommended for exterior use or direct application to plastered walls, gypsum wallboard or concrete walls. Do not use OCTOLAM decorative laminates in areas exposed to temperatures in excess of 275°F (135°C). Fabrication should not be done in an air temperature of less than 65°F (18°C). Materials should be allowed to acclimatize to the surrounding temperature before fabrication can proceed. Do not expose Octolam to extremes in humidity, temperatures higher than 135°C for substantial periods of time, or intense, continuous, direct sunlight. Slight variations in colour are normal, especially from one production run to another, but are not detrimental to the overall appearance.

Composition and Materials: OCTOLAM decorative plastic laminates are sheets consisting of plain, coloured or decorative paper, coated or impregnated with melamine-formaldehyde resins which are pressed together with phenolic resin impregnated kraft paper at a pressure of approximately 1200 lbs. per square inch at temperatures in excess of 275°F (135°C). Metal laminates consist of either aluminum, copper or stainless steel foils which are bonded to a phenolic backer. The back is sanded to maintain a uniform thickness and to ensure proper bonding.

3. BONDING

OCTOLAM decorative laminates should be bonded to a core material such as laminate grade plywood, particleboard, MDF, or metal using adhesives and techniques as recommended by reliable adhesive manufacturers and American National Standard Performance Standards for Fabricated High Pressure Decorative Laminate Countertops ANSI A 161 2-1979 (Sponsored by National Association of Plastics Fabricators). A pre-test is always suggested prior to any job. When bonding gloss laminates on a press, use moderate temperatures and pressures (t 60°C and $1 < p < 1.5$ bars). Hen hot bonding filmed sheets, avoid exceeding 70°C for 6 minutes at a pressure of 2 bars.

4. POSTFORMING

Postforming grade laminates can be formed under the effect of heat (165°C to 170°C) and mechanical pressure along the convex or concave generator lines. Generally a radius of 8mm can be achieved on a 0.8mm thick sheet.

5. CONDITIONING HPL SHEETS

Prior to fabrication, care should be taken to ensure that a moisture imbalance does not exist between an OCTOLAM decorative laminate and the substrate. It is recommended that HPL sheets be stored in the following ambient conditions for 10 days prior to use: Temperature – 18 to 22 degrees Celsius; Relative Humidity – 40 to 60%

6. CUTTING

Use tungsten-carbide inserts, sharpened with care to avoid chipping and incipient cracking or hazing. Protect the surface of the sheet against possible abrasion friction. For manual cutting a scoring tool can be used such as a Zinc worker's claw. HPL can also be cut using fixed machines such as circular saws. To avoid stress-cracking, internal corners and notched incisions should always be smoothly rounded with a minimum radius of 5mm.

(440) 248-0000
6655 parkland boulevard
solon, ohio 44139
(440) 519-1950 fax
www.surfacematerials.com

7. MAINTENANCE

Normal Maintenance: Surfaces of OCTOLAM decorative laminates may be cleaned with a damp cloth and ordinary soap or household ammoniated liquid detergents such as glass cleaner. Abrasive cleaning products or agents such as common bathroom cleaners containing five percent or more of chlorine bleach solution should not be used.
Heavy Maintenance: For tougher stains, organic solvents such as alcohol, acetone, lacquer thinner or paint solvents can be used. Some organic solvents may cause discoloration or permanent damage to OCTOLAM decorative laminates. When solvents are required, always test the solvent on a hidden part of the fixture or on a leftover off cut first.

8. LIMITATION OF WARRANTY AND LIABILITY

Limited Warranty: The Seller warrants the product sold hereunder shall conform in all material respects to the Seller's standard specifications shown on the Specification Sheets. The Buyer assumes all risk as to the results of the use of the products purchased, whether used singly or in combination with other materials or in any process.

Limitation of Claims: At the Seller's option, replacement material without any additional cost to the Buyer, or purchase price refund will apply only in cases where manufacturer defect has been proven.

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, BASED ON ANY COURSE OF DEALING OR USAGE OF TRADE OR OF FITNESS FOR PARTICULAR USE OR OTHERWISE, OTHER THAN STATED HEREIN OR REQUIRED BY APPLICABLE LAW, SELLER'S LIABILITY FOR ANY LOSS OR CLAIM WHATSOEVER, INCLUDING A CLAIM FOR BREACH OF THE WARRANTY OF MERCHANTABILITY, SHALL BE LIMITED SOLELY AND EXLUSIVELY TO REPLACEMENT OF DEFECTIVE OR NON-CONFORMING PRODUCTS AND REPAYMENT OF THE PURCHASE PRICE. IN NO EVENT SHALL SELLER BE LIABLE FOR ANY OTHER ACTUAL DAMAGES OR ANY SPECIAL INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGE.

Any course of dealings between the parties to the contrary notwithstanding, the Buyer is responsible for inspection of the product upon receipt and prior to any cutting or fabrication. Any claim by the Buyer for breach of warranty shall be deemed waived to the extent it could have been determined by such inspection, unless presented in writing five (5) days from the date of receipt of the products to which such claims relate. In all events, claims not made within two months after receipt are deemed waived.

The seller shall have no liability for defects or other failures caused by failure to fabricate, install, use or maintain the products in accordance with Octopus' instructions.

The buyer assumes all risks and liability for loss, damage, or injury to person or property of the Buyer or others arising out of the use of possession of any products sold hereunder. Any question concerning this warranty should be mailed to:

Octopus Products Limited
WARRANTY
23 Gurney Crescent, Toronto, ON
CANADA M6H 2B9

This warranty gives you specific legal rights. Consumers for personal or household use may also have other rights, which will vary from province to province, or in the USA, from state to state. Federal law does not permit the disclaimer or modification of implied warranties for consumers, but does permit the limitation of the duration of the implied warranties. Some provinces and states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

9. CLAIMS

Customers to verify all product supplied as ordered. For orders delivered by common carrier any damage found upon inspection must be noted on the delivery slip before the driver leaves your premises. All claims must be made to Octopus in writing within five (5) days of receipt of goods and samples of damaged / defective product must be supplied before a claim can be processed. Claims can be sent by the flowing means:

Postal Mail: Octopus Products Limited, CLAIMS, 23 Gurney Crescent, Toronto, ON M6B 1S9

Email: bwilson@octopusproducts.com

surface materials
The ultimate in interior finish products.

(440) 248-0000
6655 parkland boulevard
solon, ohio 44139
(440) 519-1950 fax
www.surfacematerials.com

OCTOLAM: 101C, GL100C, 154C, GL154C, 155, GL155C, 222, 223, 224, 225, 226, 227, 229, 230, 236, 237, 238, 241, 242, 245, 246, 247, 248, 251, 260, 261, 262, 263, 917, 918, 919, 920, 921, 933, 935, 936, 943, 944, 947, 949, 951, 952, 953, 957, 958, 959, 961, 963, 978, 979, 981, 982, 984, 985, 995, 996, 997, 998, 999, 1000, 1091, 1092, 1093, 1094, 1095, 1114, 1121-1127, 1143-1149, 1171, 1180-1182			
TYPE: HPL (NEMA LD 3 -2005) HGS		THICKNESS 0.90 mm	
Sl. No.	PROPERTIES	REQUIREMENTS NEMA LD 3 -2005	TYPICAL VALUES
1	Thickness (mm)	0.9± 0.12	0.94
2	Cleanability	20	Passed
	Stain (1-10)	NE	Passed
	Stain (11-15)	M	Passed
3	Boiling Water Resistance	NE	Passed
4	High Temperature Resistance	SL	Passed
5	Ball Impact Resistance (Small ball)	NA	30N
6	Dimensional Change		
	% MD (Max)	0.5	0.34
	% CD (Max)	0.9	0.57
7	Wear Resistance	400	430
NE – No effect SL – Slight effect M – Moderate effect S – Severe effect NA – Not applicable			

OCTOLAM: 157, 271, 272, 274, 276, 278, 279, 280, 284, 286, 287, 288, 289, 290, 291, 292, 293, 294, 296, 297, 913, 914, 915, 916, 1001, 1002, 1004, 1085, 1086, 1087, 1088, 1089, 1090					
Sl #	**Test Particulars**	**Unit**	**NEMA LD3 2005 HGL Type**	**IS: 2046,1995 HGS Grade**	**Octolam**
1	Resistance to surface wear (Cycles)	Revolutions	400 (Min)	350(Min)	(400 Min)
2	Resistance to immersion in Boiling Water : a) Mass Increase b) Thickness	 % %	 No Effect	 Not more than 10	 4 - 5 % & No effect
3	Resistance to dry heat at 180*C	Rating	Slight Effect	Slight Effect	Slight Effect
4	Dimensional Stability at Elevated Temperature	% %	0.60 (MD)Max 1.00 (CD)Max	0.55 (MD) Max 1.03 (CD) Max	0.30 0.60
5	Resistance to Staining Group 1 & 2 Group 3 & 4	 Rating	 No effect Moderate effect	 Not Less than 5 Not Less than 4	 5 4
7	Resistance to Cigarette Burns	Rating	Not specified	Not Less than 3	4

surface materials
The ultimate in interior finish products.

(440) 248-0000
6655 parkland boulevard
solon, ohio 44139
(440) 519-1950 fax
www.surfacematerials.com

OCTOLAM: 184, 253, 254, 255, 256, 258, 282, 346, 462, 532, 534, 535, 538, 541MT, 546MT, 549MT, 550MT, 551MT, 568, 609, 727, 728, 731, 732, 737, 986, 987, 988, 989, 990, 991, 992, 993, 994, 1025, 1026, 1115, 1120, 1128, 1130, 1183				
	Standard		**Postforming**	
	HG	VG	HG	VG
Thickness tolerance in mm En 438-2-4	±0.1 mm	±0.1 mm	± 0.1 mm	±0.1 mm
Surface defects ▪ Spots in mm2/m2 ▪ Linear in mm/m2	≤1 ≤10	≤1 ≤10	≤1 ≤10	≤1 ≤10
Abrasion resistance Number of revolutions En 438-2-6	≥350	Structure ≥150 Pearlescent ≥50	≥350≥	Pearlescent ≥50
Resistance to boiling water 2 hours at 212°F (100°C) ▪ Mass ▪ Thickness ▪ Appearance EN 438-2-7	 ≤12% ≤14% Class 4	 ≤12% ≤14% Class 4	 ≤17.5% ≤19.5% Class 3	 ≤17.5% ≤19.5% Class 3
Superficial heat resistance 180°C ▪ Gloss ▪ High gloss ▪ Other EN 438-2-8	 - - Class 4	 - - Class 4	 Class 3 Class 4 Class 4	 Class 3 - Class 4
Dimensional stability ▪ Longitudinal ▪ Transverse EN 438-2-9	 <0.30% <0.60%	 <0.30% <0.30%	 <0.40% <0.60%	 <0.40% <0.60%
Impact resistance (small ball) in N EN 438-2-11	≥20	≥20	≥20	≥20
Resistance to cracking EN 438-2-13	Class 4	Class 4	Class 4	Class 4
Resistance to scratching in N ▪ Gloss ▪ High gloss ▪ Structure ▪ Other EN 438-2-14	 ≥2	 ≥2 ≥1.75	 ≥1.5 <2 ≥2 - ≤2	 ≥1.5 <2 - ≥1.75
Colour fastness under artificial light	≥6	≥6	≥6	≥6
Resistance to cigarette burns En 438-2-18	Class 3	Class 3	Class 3	Class 3
Postforming radius minimum in mm ▪ Thickness 0.8 mm ▪ Thickness 1.0 mm EN 438-2-20			 8 10	 8 10
Postforming heat resistance in s EN 438-2-22			≥15s	≥15s
Resistance to steam Grade (not worse than) NFT 54363	Class 4	Class 4	Class 4	Class 4
Fire rating – Applicable Special Order for Fire Grade Material only - EN 438-2-24	M3 (Class 2)		M3 (Class 2)	

The values shown above are equal to and generally exceed the requirements of the ANFOR Standard NFT 54301.

surface materials
The ultimate in interior finish products.

(440) 248-0000
6655 parkland boulevard
solon, ohio 44139
(440) 519-1950 fax
www.surfacematerials.com

OCTOLAM: 925, 931						
	Standard		**Postforming**		**Metals**	
	HG	VG	HG	VG	HG	
Dimensional stability	Elevated Temp.	Ambient Temp.	Elevated Temp.	Ambient Temp.	Elevated Temp.	Ambient Temp.
▪ Longitudinal	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
▪ Transverse	1.4%	0.5%	1.4%	0.5%	1.4%	0.5%
EN 438-2	Results are the same for both HG & VG		Results are the same for both HG & VG			
Resistance to boiling water 2 hours at 212°F (100°C)						
▪ Mass	≤16%		≤23%		≤23%	
▪ Thickness	≤21%		≤25%		≤25%	
EN 438-2						
Resistance to steam Grade (not worse than)	4	4	3	3	3	
EN 438-2						
Dry heat resistance 356°F (180°C) cooled for 20 min Grade (not worse than)						
▪ Gloss finish	3	x	3	x	3	
▪ Others	4	x	4	x	4	
EN 438-2						
Resistance to household cleaning products EN 438-2	No effect		No effect		No effect	
Impact resistance of small diameter ball Spring force (N)	≥20	≥20	≥20	≥15	≥20	
EN 438-2						
Scratch resistance Load (N)	≥2.0	≥1.75	≥2.0	≥1.75	≥2.0	
EN 438-2						
Wear resistance Number of revolutions						
▪ IP	≥150	≥50	≥150	≥50	≥150	
▪ $\frac{IP + FP}{2}$	≥350	≥150	≥350	≥150	≥350	
EN 438-2						
Resistance to cigarette burns						
▪ Grade (not worse than)	3	x	3	x	3	
▪ Time to failure (min.)	110	x	100	x	100	
EN 438-2						
Formability (Radius / mm max.)						
▪ Method A	a	a	15	10	15	
▪ Method B	a	a	15	10	15	
EN 438-2						
Thickness tolerance						
EN 438-2	±0.1 mm	±0.1 mm	±0.1 mm	±0.1 mm	±0.1 mm	

a = Not applicable
b =Available upon request
x = No requirement

surface materials
The ultimate in interior finish products.

(440) 248-0000
6655 parkland boulevard
solon, ohio 44139
(440) 519-1950 fax
www.surfacematerials.com

OCTOLAM: 161, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 185, 186, 188, 189, 190, 191, 192, 193, 194, 195, 197, 903, 905, 906, 911, 912, 962, 963, 964, 966, 967, 968, 969, 971, 972, 973, 976, 977, 1005, 1006, 1007, 1008, 1009, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1111, 1112, 1116, 1117, 1118, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1170, 1184, 1185, 1186, 1187, 1188, 1189

Test Values as per EN-438

Properties		Test Method(EN 438-2)	EN-438 HGS	Typical Values	EN-438 VGS	Typical Values
Length & Width Tolerance		6	+10 mm - 0 mm	+10 mm - 0 mm	+10 mm - 0 mm	+10 mm - 0 mm
Thickness Tolerance (.50 <t ≤ 1.0)		5	± 0.10	± 0.05	± 0.10	± 0.10
Resistance to Surface wear (Revolution Minimum) Wear value (cycle)		10	≥350	>450	≥150	>250
Resistance to immersion in Boiling water	Appearance Gloss Other Finish	12	 3 4	 3 5	 3 4	 3 5
Resistance to Dry Heat at 180°C Rating (min)	Gloss	16	3	4	3	4
	Others		4	5	4	5
Dimensional Stability at elevated temp. (Max. %)	Machine Direction	17	<0.55	<0.35	<0.75	<0.55
	Cross Direction		<1.05	<0.85	<1.25	<.95
Resistance to Impact by Small –Diameter Ball		20	20N (min)	>22N	15N (min)	>15N
Resistance to Cracking Under stress Rating(min)		23	4	5	4	4
Resistance to Scratching (Force)Rating		25	3	>3	2	>2
Resistance to Staining **(**Rating Min.)	Group 1 & 2	26	5	5	5	5
	Group 3 & 4		4	4	4	4
Light Fastness(Xenon Arc)		27	4 to 5 Grey Scale	5	4 to 5 Grey Scale	5
Resistance to Cigarette burns (Rating Min.)		30	3	3	3	3
Resistance to water Vapour (Rating Min.))		14	4	5	4	5
Density		EN ISO 1183:1987	1.35	1.38	1.35	1.38

surface materials
The ultimate in interior finish products.

(440) 248-0000
6655 parkland boulevard
solon, ohio 44139
(440) 519-1950 fax
www.surfacematerials.com

OCTOLAM: 200, 201, 202, 203, 204, 207, 208, 252, 517M, 576, 578, 588M, 740M, 932

Test values as per NEMA LD3-2005

Post-Forming/HGP size:1.0Tx4'x8'

	TEST		*1 (1.0T)*	HGP (standard)
LD3.1	Appearance			
	3.1.4 Visual			
	Type A defects - smudges/smears/streaks/fingerprints	#A	**0**	*0*
	Type B defects - single particles 0.60mm2 or more	#B	**0**	*0*
	Type C defects - 3+,each 0.30mm2+,w/in 300mm d.circ	#C	**0**	*0*
	3.1.5 Thickness		**1.00**	*0.88-1.12mm*
	3.1.6 Flatness	max ht	**30**	*120*
	3.1.7 Broken Corners	# / dist. to corner	**0 / 0**	*<1@25mm or <2@13mm*
	3.1.8 Squareness	dif. cross corner lens.	**2**	*<=6*
		cross corner lens.	*2707 / 2705*	
	3.1.9 Edge Straightness	mm dev./ m edge len	**<0.5mm**	*1.5mm/m*
LD3.2	Surface Finish	md 60deg gloss	**8.8**	*x*
		cmd 60deg gloss	**8.9**	*x*
LD3.3	Light Resistance -- xenon arc	NE | SL | M | S	**N**	*SL*
LD3.4	Cleanability/Stain Resistance	cleanability sum of scores	**9**	*20*
	clean: sum of scores reagents 1-15 // stain: list all w/ M || S	1-10:NE | M | S	**N**	*N*
	water:0 | 25/bc.sponge:1 | 25/bk.sod.br:2 | solv:3 | ClO:4 | 5	11-15:NE | M | S	**N**	*M*
LD3.5	Boiling Water Resistance	NE | SL | M | S	**N**	*N*
LD3.6.3	High Temperature Resistance (oil)	NE | SL | M | S	**N**	*SL*
LD3.7.2	Linear Glass Scratch Resistance	<20 | <50 | <100 | <200 | >200	**<200**	*x*
LD3.7.3	Diamond Scratch Resistance	1 | 2 | 3 | 4 | 5	**4**	*x*
LD3.8	Ball Impact	impact height (3rep)	**950**	*750*
LD3.9	Dart Impact Resistance	impact height (3con.brk)	**1025**	*300*
LD3.10.2	Radiant Heat Resistance (coil)	ave. 3 samp. in sec	**161**	*100*
LD3.11	Dimensional Change	ave md %	**0.21%**	*1.10%*
		ave cmd %	**0.65%**	*1.40%*
LD3.12	Dimensional Stability	ave md %	**0.20%**	*1.00%*
		ave cmd %	**0.35%**	*1.30%*
LD3.13	Wear Resistance	ave.corr.WR rounded(50)	**650**	*400*
LD3.14	Formability	md pass|fail 3@radius	**16**	*16*
	postforming grades only	cmd pass|fail 3@radius	**10**	*16*
LD3.15	Blister Resistance	ave of 3 in sec	**66**	*55*

surface materials
The ultimate in interior finish products.

(440) 248-0000
6655 parkland boulevard
solon, ohio 44139
(440) 519-1950 fax
www.surfacematerials.com

Post-Forming/VGPsize:0.7Tx4'x8'

	TEST		2 (0.7T)	VGP (standard)
LD3.1	Appearance			
	3.1.4 Visual			
	Type A defects - smudges/smears/streaks/fingerprints	#A	0	0
	Type B defects - single particles 0.60mm2 or more	#B	0	0
	Type C defects - 3+,each 0.30mm2+,w/in 300mm d.circ	#C	0	0
	3.1.5 Thickness		0.74	0.60-0.80mm
	3.1.6 Flatness	max ht	53	120
	3.1.7 Broken Corners	# / dist. to corner	0 / 0	<1@25mm or <2@13mm
	3.1.8 Squareness	dif. cross corner lens.	2	<=6
		cross corner lens.	2740 / 2742	
	3.1.9 Edge Straightness	mm dev./ m edge len	0.5mm	1.5mm/m
LD3.2	Surface Finish	md 60deg gloss	9.4	x
		cmd 60deg gloss	9.3	x
LD3.3	Light Resistance -- xenon arc	NE | SL | M | S	N	SL
LD3.4	Cleanability/Stain Resistance	cleanability sum of scores	9	20
	clean: sum of scores reagents 1-15 // stain: list all w/ M || S	1-10:NE | M | S	N	N
	water:0 | 25/bc.sponge:1 | 25/bk.sod.br:2 | solv:3 | ClO:4 | 5	11-15:NE | M | S	N	M
LD3.5	Boiling Water Resistance	NE | SL | M | S	N	N
LD3.6.3	High Temperature Resistance (oil)	NE | SL | M | S	N	SL
LD3.7.2	Linear Glass Scratch Resistance	<20 | <50 | <100 | <200 | >200	<200	x
LD3.7.3	Diamond Scratch Resistance	1 | 2 | 3 | 4 | 5	4	x
LD3.8	Ball Impact	impact height (3rep)	600	500
LD3.9	Dart Impact Resistance	impact height (3con.brk)	550	200
LD3.10.2	Radiant Heat Resistance (coil)	ave. 3 samp. in sec	126	80
LD3.11	Dimensional Change	ave md %	0.34%	1.10%
		ave cmd %	0.73%	1.40%
LD3.12	Dimensional Stability	ave md %	0.20%	1.00%
		ave cmd %	0.45%	1.30%
LD3.13	Wear Resistance	ave.corr.WR rounded(50)	650	400
LD3.14	Formability	md pass|fail 3@radius	10	13
	postforming grades only	cmd pass|fail 3@radius	8	13
LD3.15	Blister Resistance	ave of 3 in sec	50	40

surface materials
The ultimate in interior finish products.

(440) 248-0000
6655 parkland boulevard
solon, ohio 44139
(440) 519-1950 fax
www.surfacematerials.com

OCTOLAM: 1027 to 1037, 1039 to 1082, 1131, 1132, Z105			
Properties	**Test Method**	**Unit**	**Value**
Density	ISO 1183-1:2004	g/cm3	1,35
Tolerance Thickness	One Side 2,0 ± 0,2 mm 2,5 ± 0,2 mm 3,0 ± 0,3 mm 4,0 ± 0,3 mm	Double Side 2,0 ± 0,2 mm 4,0 ± 0,3 mm 6,0 ± 0,4 mm 8,0 ± 0,5 mm 10,0 ± 0,5 mm 12,0 ± 0,6 mm	
Flexural Modulus	ISO 178:2003	Mpa	9000
Abrasion Resistance	EN438/2 - 10	Revs - 350	
Resistance to Immersion in Boiling Water Mass Thickness	438/2 - 12	% < 3 % < 4	
Dimensional Stability at Elevated Temperature	EN438/2 - 17	% lengthwise 2 – t < 5 mm T – 5 mm % crosswise 2 – t < 5 mm T – 5 mm	 0,40 0,30 0,80 0,60
Resistance to Impact by Large Diameter Ball	EN438/2 – 21	2 – t < 6mm T – 6 mm	1400 1800
Flatness (Full Size Sheet)	En438/4 – 6.3	Maximum Deviation 4 – t – 6 : 8mm/m 6 – t – 10 : 5mm/m 10 – t : 3mm/m	
Fire Behaviour	Euroclassification (EN 13501-1:2002)	6 – 8 mm 10 – 14 mm * B-s2, d0 Flame Retardant Available On Request	D-s2, d0* B-s2, d0

surface materials
The ultimate in interior finish products.

(440) 248-0000
6655 parkland boulevard
solon, ohio 44139
(440) 519-1950 fax
www.surfacematerials.com

OCTOLAM: 1105 to 1110, 1113, 1129, 1162-1169, 1172-1179

Properties	Specified values as per IS: 2046 – 1995, Type S, HGS
Thickness	1.00mm (±0.10mm)
Dimensional stability at deviated temperature - Longitudinal (%) - Transverse (%)	0.55 (Maximum) 1.025 (Maximum)
Dimensional stability at 20˚C - Longitudinal (%) - Transverse (%)	0.375 (Maximum) 0.60 (Maximum)
Resistance to dry heat 180˚C	Not worse than Grade 4
Resistance to immersion in boiling water - Mass increase (%) - Thickness increase (%) - Appearance	10.0 (Maximum) 11.8 (Maximum) Not worse than Grade 4
Resistance to impact by small diameter ball	20 N (Minimum)
Resistance to cracking	Not worse than Grade 4
Resistance to scratching	2 N (Minimum)
Resistance to staining	Not worse than Grade 5
Resistance to cigarette burns	Not worse than Grade 3
Resistance to steam	Not worse than Grade 4
Resistance to colour change (wool standards) - In Xenon arc light - In enclosed Carbon arc light	Not worse than Grade 6 Not worse than Grade 5
Resistance to surface wear	350 (revolution)
Appearance	Should be free from foreign particles

surface materials
The ultimate in interior finish products.

(440) 248-0000
6655 parkland boulevard
solon, ohio 44139
(440) 519-1950 fax
www.surfacematerials.com

OCTOLAM: 1150-1161

GRADE: HGS & VGS/TYPE: S/SIZE & Thickness: 2440X1220X0.9MM

SN	PROPERTY	UNIT	TEST METHOD	REQUIRED VALUE IS 2046:1995	OBTAINED VALUE	REMARKS
1	Resistance to surface wear	Revolution IP FP AVG	Annex C	 150 350 250	 165 495 330	-
2	Resistance to Immersion in boiling water	a) % increase in mass max. b) %increase in thickness max. c) Appearance grade	Annex D	12 14 4	8.33 9.17 4	-
3	Resistance to dry heat @ 180°C	Grade	Annex E	4	4	-
4	Dimensional stability deviated temperature	a) L direction %max b) T direction %max	Annex F	0.63 1.12	0.57 1.03	-
5	Resistance to impact by small diameter ball	Newton	Annex H	≥20	27	-
6	Resistance to cracking thin laminate	Grade	Annex K	4	4	-
7	Resistance to Scratching	Newton	Annex L	≥2	2.2	-
8	Resistance to Staining Grade 1 &2 Grade 3 & 4	 Grade Grade	Annex M	 5 4	 5 4	-
9	Resistance to cigarette burn	Grade	Annex P	3	3	-
10	Resistance to steam	Grade	Annex T	4	4	-

Fn(X:): TechSheetOCTOLAM (HPL)