



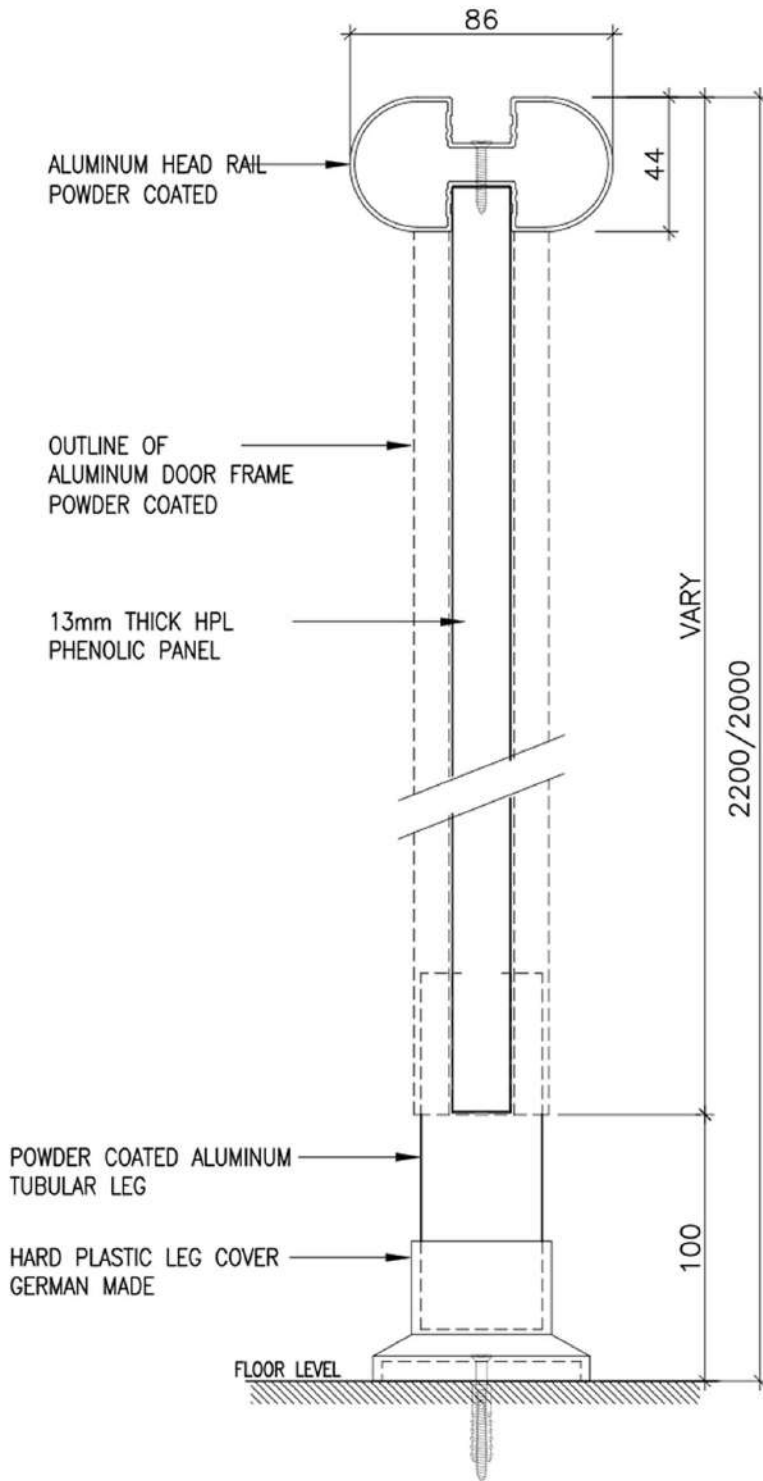
PHENOLIC TOILET DATA SHEET

**(Global Architectural Industrial company)
GAICO**

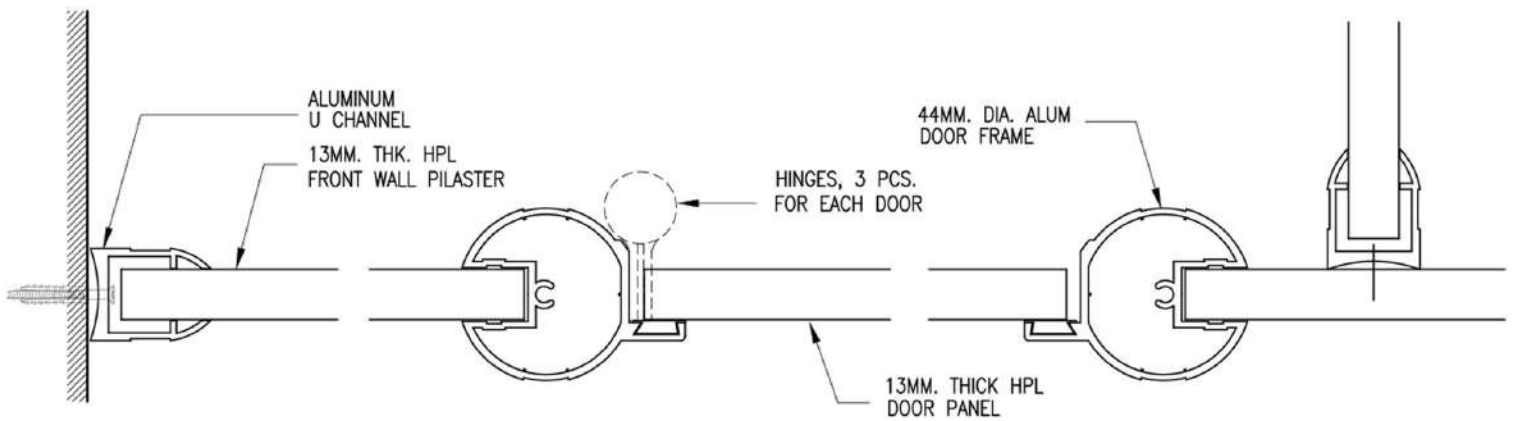
TOILET PARTITION DATASHEET



SHOP DRAWINGS



VERTICAL SECTION



WALL STARTER

DOOR JAMB

INTERSECTION

ALUMINIUM DATA SHEET

QUALITY CONTROL STANDARDS

SCOPE: EXTRUSION STANDARDS

This specification in particular meets the requirement for architectural aluminum extrusions.

1. ALLOY COMPOSITION

ALLOYS:

	%Cu	%Fe	%Mg	%Si	%Ti	%Zn	%Cr	%Mn
6063.30	0.03	0.16-0.22	0.47-0.57	0.39-0.47	0.02	0.025	0.03	0.03
6005.01	0.03	0.15-0.25	0.45-0.60	0.65-0.90	0.02	0.03	0.03	0.03
6351.01	0.03	0.15-0.25	0.55-0.70	0.90-1.20	0.005-0.020	0.03	-	0.45-0.65
	- Percent by weight - Except where a range is shown all value are maximum					- Other elements each .03, Total .10 - Remainder is aluminum		

2. MECHANICAL PROPERTIES

	Minimum yield strength Kg/mm ²	Min-Ultimate Tensile Strength- Kg/mm ²	Min.% Elongation In 50 mm/4D
6063.30 - T6	18	21	8
6005.01- T6	20	28	9
6351.01- T6	26	30	11

3. HEAT TREATMENT

T6- Solution heat treatment and age hardened

T4- Solution heat treatment and naturally aged to a substantially stable condition.

4. DIMENSIONS AND SHAPES

Dimension tolerances are divided into two categories as mentioned below:

4.1 Category I:

Standard Dimensional tolerances, which meet DIN 1748 (part 4) applicable for all extruded sections, unless special tolerances are requested.

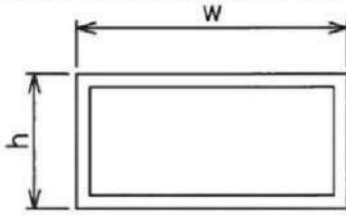
4.2 Category II:

Special Dimensional tolerances, which meet DIN 17615 (part 3), and are only applicable for any system, or for any customer's special requirements.

To ensure that dimensions and shapes are within the specified limits, "DIMENSIONAL CHECKS" are made at every stage of production with the help of the standard measuring tools and "GO, NO-GO" gauges.

QUALITY CONTROL STANDARDS.

STANDARD DIMENSIONAL TOLERANCES

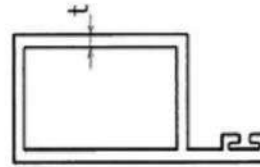


DIMENSIONS

Width (w) and Height (h)-mm

Over	To	Tolerance
		+ -
-	10	0.3
10	15	0.4
15	30	0.5
30	50	0.6
50	80	0.7
80	100	0.8
100	120	1.0
120	150	1.2
150	180	1.5
180	240	1.9

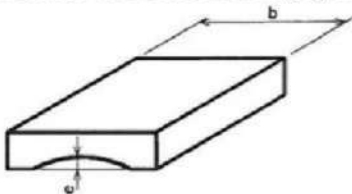
DIN 1748 (PART 4)



WALL THICKNESS (t) mm

Over	To	Tolerance
		+ -
-	1.5	0.2
1.5	3	0.25
3	6	0.3
6	10	0.35
10	15	0.4
15	20	0.5
20	30	0.60

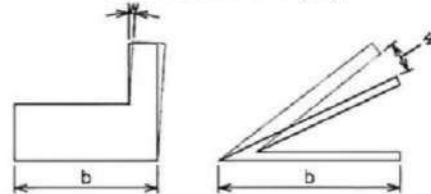
CONCAVITY/CONVEXITY(e) mm



Solid Sections: $e=0.005xb$
(minimum 0.20 mm)
Hollow Sections: $e=0.01xb$
(minimum 0.30mm)

Width (b)		Concavity/mm Convexity/mm	Concavity/mm Convexity/mm
Over	Upto	Hollow	Solid
-	10		
10	15		
15	30	0.3	-
30	50	0.5	0.25
50	80	0.8	0.4
80	100	1.0	0.5
100	120	1.2	0.6
120	150	1.5	0.75
150	180	1.8	0.9
180	240	-	1.2

ANGULARITY (W)

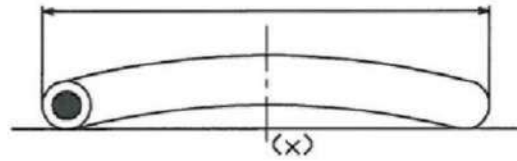


$W \pm 1^\circ (0.0174xh)$
W-being the deviation from the given angle
h-being the part of the section
which has to be the given angle

Width (b)		Tolerances	
upto			
-	30		0.5
30	100	0.01xb	1
100	200	0.008xb	1.6

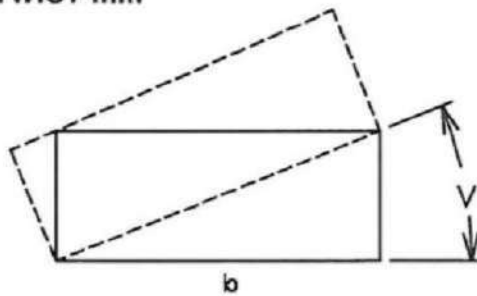
BOW-mm

2mm/m increasing continuously over the full length of section.
No single deviation per 300 mm shall exceed 0.3 mm.



Length of section in M	Upto 1	Over 1 Upto 2	Over 2 Upto 3	Over 3 Upto 4	Over 4 Upto 5	Over 5 Upto 6	Over 6 Upto 7	Over 7
Tolerance in mm	-	4	6	7	8	9	12	***

*** Subject to mutual agreement

TORSION/TWIST-mm


$$v = b \times 0.025$$

V= Torsion/Twist

b=Side taken as basis to check the torsion/twist

Tolerance on twist for different lengths +/-

Width across flats Over mm	Upto & including mm	- Upto 1000	Over 1000 Upto 2000	Over 2000 Upto 3000	Over 3000 Upto 4000	Over 4000 Upto 5000	Over 5000 Upto 6000	Over 6000
-	25	1.0	1.5	1.5	2.0	2.0	2.0	Subject to mutual agreement
25	50	1.0	1.2	1.5	1.8	2.0	2.0	
50	75	1.0	1.2	1.2	1.5	2.0	2.0	
75	100	1.0	1.2	1.5	2.0	2.2	2.5	
100	125	1.0	1.5	1.8	2.2	2.5	3.0	
125	150	1.2	1.5	1.8	2.2	2.5	3.0	
150	200	1.5	1.8	2.2	2.6	3.0	3.5	

Fixed LENGTH (Sawn length/mm)

The tolerance also includes the angle in case the sawblade is out of the 90° angle.

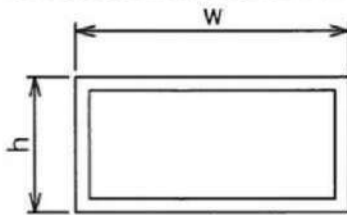
Diameter of the circumscribing circle

Permissible dimensional deviations for fixed lengths

Over	Upto	- Upto 1000	Over 1000 Upto 2000	Over 2000 Upto 5000	Over 5000 Upto 8000	Over 8000
-	25	+2 0	+3 0	+5 0	+7 0	+10 0
25	50	+3 0	+4 0	+6 0	+7 0	+12 0
50	100	+4 0	+5 0	+7 0	+8 0	+14 0
100	250	+5 0	+6 0	+8 0	+10 0	+16 0
250	300	+8 0	+8 0	+10 0	+12 0	+20 0

QUALITY CONTROL STANDARDS

SPECIAL DIMENSIONAL TOLERANCES

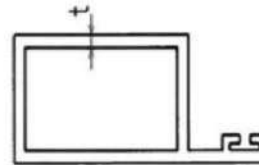


DIMENSIONS

Width (w) and Height (h)-mm

Over	To	Tolerance
		+ -
-	10	0.15
10	15	0.20
15	30	0.25
30	45	0.30
45	60	0.40
60	90	0.45
90	120	.60
120	150	.80
150	180	1.00
180	240	1.20

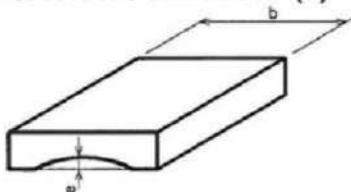
DIN 17615 (PART 3)



WALL THICKNESS (t) mm

Over	To	Tolerance
		+ -
-	1.5	0.15
1.5	3	0.20
3	6	0.25
6	10	0.30
10	15	0.40
15	20	0.50
20	30	0.60
30	40	0.70

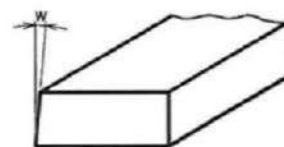
CONCAVITY/CONVEXITY (e) mm



Solid Sections: $e=0.005xb$
(minimum 0.20 mm)
Hollow Sections: $e=0.01xb$
(minimum 0.30mm)

Width (b)		Concavity/mm Convexity/mm + or -
Over	Upto	
-	40	0.20
40	60	0.30
60	90	0.40
90	120	0.45
120	150	0.55
150	180	0.65
180	210	0.70
210	240	0.75

ANGULARITY (W)



$W 1^0 (0.0174xh)$
w-being the deviation from the given angle
h-being the part of the section
which has to be the given angle

Face to be considered b mm		Tolerances	
Over	Upto	+ or - mm	+ or - degree°
-	40	0.3	0.5
40	100	$0.008xb$	1
100	300	$0.006xb$	1.5

HPL PANELS DATA SHEET



Greenlam

AFX

ANTI FINGERPRINT SURFACES

TECHNICAL DATA SHEET - LAMINATES/HPL

TECHNICAL SPECIFICATIONS

LAMINATES/HPL



S. NO.	PROPERTIES	Unit	TEST METHOD AS PER EN 438 Part 2 : 2016	SPECIFIED VALUES	TYPICAL GREENLAM	
1	Classification		EN 438-3 Table- 3	HGS*	HGS*	
2	Product features			Electron Beam Cured, Anti Finger Print, Near Zero Reflection, Ultra Matt Surface, Thermal healing of micro scratches		
DIMENSIONAL PROPERTIES						
3	Product offer, L x B	M			1.30M x 3.05M	
4	Surface Quality	mm ² /M ²	EN 438-3-6.3, 5.2.4	1.0 (max)	Complies	
5	Fibers, Hairs & Scratches	mm/M ²		10.0 (max)	Complies	
6	Thickness & Maximum variation	mm	EN 438-2 – 5	0.70 ± 0.10 0.80 ± 0.10	0.70 ± 0.05 0.80 ± 0.05	
7	Length & Width	mm	EN 438-2 – 6	+10mm /-0mm	+5mm /-0mm	
8	Flatness	mm/M	EN 438-2 – 9	60.0 (max)	≤ 50	
9	Edges Straightness	mm/M	EN 438-2 – 7	1.5 (max)	≤ 1	
10	Edges Squareness	mm/M	EN 438-2 – 8	1.5 (max)	Complies	
SURFACE PROPERTIES						
11	Resistance to Dry Heat at 160° C	Rating	EN 438-2 -16	Not worse than 4	5	
12	Resistance to Surface Wear	Revolutions	EN 438-2 - 10	150 (min.) IP	300	
13	Resistance to Stains	Group 1 & 2 Group 3	Rating (min.) Appearance	EN 438-2 - 26	5 4	5 ≥ 4
14	Resistance to Wet Heat at 100°C	Rating	EN 438-2 - 18	5	5	
15	Resistance to Scratching	Rating	EN 438-2 - 25	5	5	
16	Resistance to Water Vapor, Appearance	Rating	EN 438-2 -14	4 (min.)	5	
17	Light Fastness (Xenon-Arc Light)	Contrast	EN 438-2 - 27	4 to 5	4	
18	Resistance to Micro scratches (Surface visual assessment)	Class	EN 438-2 -30	No requirement	5	
19	Surface Gloss	GU	EN 13722	<10 ± 3	Less than 4	
20	*Chemical Spot Test	Level	SEFA 8-PL-2010 Method 81	Not more than 4 Level-3 conditions	Less than 4 conditions	
PHYSICAL PROPERTIES						
21	Resistance to Impact by Large Diameter Ball		EN 438-2 – 21			
	a) Drop Height	mm		800 (min.)	1000	
	b) Diameter of Indentation	mm		10 (max)	7	
22	Resistance to Impact by Small Diameter Ball	Rating	EN 438-2 - 20	20 (min)	25	
23	Resistance to Immersion in Boiling Water	Rating	EN 438-2 - 12	4 (min)	5	
24	Dimensional stability at Elevated temperatures		EN 438-2 - 17			
	Longitudinal	%		0.55 (max.)	Complies	
	Transverse	%		1.05 (max.)	Complies	
25	Resistance to cracking	Rating	EN 438-2 - 23	4 (min)	5	
26	Density	g/cm ³	EN ISO 1183 -1 :2004	1.35 (min.)	1.38	
27	Electrostatic Dissipation Property	Ω	EN 61340-4-1	No requirement	1 x 10 ¹⁰ to 10 ¹¹	
FIRE PERFORMANCE						
28	Reaction to Fire (Tested according to EN 13823:2010 & EN 11925-2 :2010)*	Euro class	EN 13501-1: 2007+ A1:2009	See foot note on Fire Performance**		
HEALTH AND ENVIRONMENTAL PROPERTIES						
29	Formaldehyde Release	ppm Certificate	EN 16516:2017 UL-2818:2013	0.1 Greenguard Gold	0.02 Complies	
		Rating	EN 13986	No requirement	Less than E1	
30	Emissions with respect to Indoor Air Quality:	mg/M ³	UL-2818:2013	0.22	Conforms	
	TVOC	ppb ³	Greenguard Gold standards	7.3	Conforms	
	Formaldehyde (CAS 50-00-0)	ppm		0.043	Conforms	
	Total Aldehydes	µg/M ³		6.5	Conforms	
	4-Phenylcyclohexene (CAS 4994-16-5)	µg/M ³		20	Conforms	
	Particle Matter less than 10 µm	µg/M ³		160	Conforms	
	1-Methyl-2-pyrrolidinone (CAS 872-50-4)	--		1/2 CREL or 1/100th TLV	Conforms	
31	Product sanitization/hygiene	--	NSF/ANSI 35	NEMA Assessment	Conforms	
32	Transfer of constituents to Food during contact	Migration of 10 mg/dm ²	EN 1186-1:2002 EN 1186-3:2002 EN 1186-14:2002	3% Acetic Acid 95% Ethanol Iso-Octane	1.0 1.1 Less than 0.1	
33	Food safe		EN 13130-1	Yes	Yes	
34	Antibacterial Efficacy	Reduction	JIS Z 2801: 2010	2.0 (min)	Complies	
	Microbial activity & Microbial Kill			99.5% (min)	Complies	
35	AntiViral Efficacy	Reduction	ISO 21702:2019	95.0 (min)	99.9	
36	Antifungal Efficacy	Growth after 28 days	ASTM G-21-2015	Rating 1	Rating 0 (No Growth)	

Fire test performance will depend on laminate & compact thickness and construction, substrate type and thickness, and adhesive used. It is advised to contact the laminate manufacturer for details of test reports and certifications held. Greenlam can supply type S and F HPLs.

Class (Rating) – 1= Surface damage, 2= Severe appearance alteration, 3= Moderate change, 4= Slight change visible at certain angle, 5= No change

Virus tested – MS2 Bacteriophage

Bacteria tested – Pseudomonas, 2. Enterococcus Faecalis, 3. Candida Albicans 4. Pseudomonas Aeruginosa 5. Escherichia Coli 6. Klebsiella 7. MRSA (Methicillin Resistant Staphylococcus Aureus) 8. Salmonella Enterica
Fungus tested: 1. Aspergillus niger 2. Penicillium funiculosum 3. Gliocladium virens 4. Chaetobium globosum 5. Aureobasidium pullulans

Surface Finish: Ultra Matt ● Robust, resistant to dirt, Anti finger Marks, caressing silky feel. ● Size available : 1300 x 3050 mm i.e. 4.25' x 10' ● Thickness offering : 0.7 mm – 24 mm.

Note: Whereas Greenlam products are manufactured thoroughly to standards, the nature of the application procedure is beyond our control. The values given above are to the best of knowledge but without liability/warranty, expressed or implied. I Greenlam AFX Compact Laminates can be made available in Fire Retardant variants also.

Greenlam provides FSC® Certified product (Certificate No. SCS-COC-003328), on request.

*SEFA chemical spot test does not comply with Sulphuric Acid, Sulphuric Acid+ Nitric Acid, Sodium Hydroxide and Hydrogen Peroxide 30%.





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PHENOLIC TOILET ACCESSORIES





3-roll stainless steel hinge



Powder coated aluminium lock case with nylon pull-knob ...



... and nylon red-white indicator



Nylon hook and buffer



Support leg 13 RP with height-adjustable nylon rosette



Support leg 13 RF with height-adjustable nylon rosette



Corner connection 13 RP



Corner connection 13 RF

LOTS OF OPTIONAL EXTRAS

Nylon, aluminium & stainless steel

We offer a wide range of accessories: whether items of nylon which are optimally matched to our colour range, or sleek aluminium or high-quality stainless steel.

All items convince by quality, functionality and high-quality. This makes them a permanent part of our product range.

NYLON



Roll holder



Spare roll holder



WC-symbols



Hook with buffer



Toilet brush set

ALUMINIUM



Single-handed lock
RS4



Inside



Roll holder



Spare roll holder



Toilet brush set

STAINLESS STEEL OR ALUMINIUM



Single-handed lock
RS2 Aluminium bolt lock
RS3 Stainless steel bolt lock



Hook



Buffer



Hook with buffer



STAINLESS STEEL



Rosette RP



Rosette RF



Stainless steel leg
floating versions



Support angle
urinal screen



WC-symbols



Roll holder



Spare roll holder



Toilet brush set



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