

LAMINTEX WINDOWSILLS DATA SHEET 2015

LAMINTEX windowsills are composite elements consisting of raw chipboards, bonded seamlessly on surface and profile areas with CPL/HPL laminate. Different profiles, sizes, chipboard qualities, laminate thicknesses, surfaces and decors are available.

AREAS OF APPLICATION

Due to their modern design and functionality windowsills are used for interior applications at homes, offices, shops etc.

STORAGE

Horizontal, even storage in closed, dry areas [approx. 20°C and 50% to 60% relative humidity] to exclude warping or dimensional changes due to climatic conditions. Vertical storage is not recommended. Windowsills should be handled and transported with due care.

PROCESSING

Lamintex windowsills can be processed with conventional woodworking machines. For best quality/results of windowsills, use of cutting/saw device with milling cutter is needed.

QUALITY CHARACTERISTICS / TECHNICAL DATA

The quality characteristics of windowsills are dictated by the application of laminate conforming to the norm EN-438 and chipboard agreed with norm EN-312. For standard postformed windowsills, the laminate is classified as HGP (Horizontal-General purpose Postforming). That means it is suitable for horizontal applications with postforming requirements. The quality characteristics such as surface abrasion, impact resistance and scratch resistance, require a high performance which is classified as below.

For standard postformed windowsills, the chipboard is classified as P2 (furniture use). That means that it is suitable for applications with interior requirements. The raw chipboard type P5 is suitable for interior applications with higher humidity (bathrooms etc.) and for both load bearing and high moisture areas. It has an extremely low swell factor and moisture-resistant properties. The chipboard P2 Stop Fire (hardly flammable) is suitable for spaces with higher fireproof requirements. Chipboard types P5,P2 Stop Fire are made on special customer's request.

FSC CERTIFICATE

Windowsills with FSC Certificate are available on special customer's request.

LAMINATE CPL

RESISTANCE TO SURFACE ABRASION

Quality characteristic abrasion (Overlay Specifications)	Result		Index	Standard
	Initial point IP (revolutions)	Wear Resistance factor (IP+FP)/2 (revolutions)		
Overlay (Fantasy and Woodgrains)	>=150	>=350	3	EN 438-2-2005
No overlay (Uni colour and white)	>=150	>=350	3	EN 438-2:2005

IMPACT RESISTANCE – FALLING BALL TEST

Laminate –nominal thickness (mm)	Unit	Result	Index	Standard
0.40 to 0.80	Newton	>=15	2	EN 438-2:2005

RESISTANCE TO IMPACT STRESS WITH A SMALL BALL BEARING

Laminate –nominal thickness (mm)	Unit	Result	Index*)	Standard
0.4 to 0.8	Newton	>=15	2	EN 438-2:2005

ADDITIONAL QUALITY CHARACTERISTICS

Quality characteristic	Unit	Result	Standard
Resistance to dry heat	Grade	4	EN 438-2:2005
Resistance to steam	Grade	4	EN 438-2:2005
Stain Resistance, groups 1 and 2	Grade	5	EN 438-2:2005
Stain Resistance, group 3	Grade	4	EN 438-2:2005
Lightfastness (Xenon arc lamp)	Grade scale	4-5	EN 438-2:2005
Resistance to cigarette burns	Grade	3	EN 438-2:2005
Swelling behaviour	-	24h max. 14% 2h max. 4%	DIN EN 317
Bending strength	N/mm ²	>9.0	DIN EN 310
Internal bond	N/mm ²	>0.2	DIN EN 319
Density	Kg/m ³	600-720	DIN EN 323
Surface soundness *	N/mm ²	>=1.0	DIN EN 311

THICKNESS/FORMAT/TOLERANCES

Nominal laminate thickness (mm)	Thickness tolerance (mm)
0,4	± 0,08
0,5 to 0,8	± 0,10

LAMINATE HPL

Property	Test method	Property or attribute	Unit	Values
Thickness tolerance	EN 438-2.5	thickness (t)	mm	0,5 ≤t≤1,0 ±0,10 1,0 ≤t≤2,0 ±0,15
Flatness	EN 438-2.9	maximum deviation	mm/mtl	60
Resistance to surface wear	EN 438-2.10	wear resistance	revs	IP ≥150 A ≥350
Resistance to immersion in boiling water	EN 438-2.12	appearance gloss finish appearance other finishes	rating	>=3 >=4
Resistance to dry heat (180 °C)	EN 438-2.16	Appearance gloss finish appearance other finishes	rating	>=3 >=4
Resistance to wet heat (100 °C)	EN 12721	Appearance gloss finish appearance other finishes	rating	>=3 >=4
Dimensional stability at elevated temperature	EN 438-2.17	cumulative dimensional change	% long. % transv.	≤0,55 ≤1,05
Resistance to impact by small diameter ball	EN 438-2.20	Spring force	N	>=20
Resistance to cracking	EN 438-2.23	appearance	rating	>=4
Resistance to scratching ¹	EN 438-2.25	force	rating	>=3
Resistance to staining	EN 438-2.26	app.groups 1-2 appear.groups 3	rating	5 >=4
Lightfastness	EN 438-2.27	contrast	grey scale rating	>=4
Resistance to cigarette burns	EN 438-2.30	appearance	rating	>=3
Resistance to water vapour	EN 438-2.14	appearance gloss finish appearance other finishes	rating	>=3 >=4
Resistance to blistering	EN 438-2.34	Time	sec.	t <0.8 mm: >=10 t >=0.8 mm: >=15
Density	ISO 1183	density	gr/cm ³	>=1.40

* HPL with glossy structure has a protective foil.

CHIPBOARD

P2 according to EN-312 - standard and green coloured

Property	Requirement					Unit	Test Method
thickness tolerance	+/- 0,3					mm	EN 324-1
density tolerance	>620					kg/m ³	EN 323
internal bond	0,40>	0,35>	0,30>	0,25>	0,20>	N/mm ²	EN 319
bending strength	>13	>13	>11,5	>10	>8,5	N/mm ²	EN 310
modulus of elasticity in bending	>1800	>1600	>1500	>1350	>1200	N/mm ²	EN 310
formaldehyde content	<8					mg/100g	EN 120
adhesion	>0,8					N/mm ²	EN 311
rectilinearity	maximum 1,5					mm/m	EN 324-2

P5 according to EN-312

Property	Requirement					Unit	Test Method
Thickness tolerance	+/- 0,3					mm	EN 324
Density	≥ 700					kg/m ³	-
Thickness	10	11-13	14-20	21-22	25	mm	-
Tensile strength perpendicular	≥0,45	≥0,45	≥0,45	≥0,40	0,35	N/mm ²	EN 319
Bending strength	≥18	≥18	≥16	≥14	12	N/mm ²	EN 310
Modulus of elasticity	≥2550	≥2550	≥2400	≥2150	1900	N/mm ²	EN 310
Surface soundness	NPD						
Swelling in thickness	≤13	≤11	≤10	≤10	≤10	%	EN 317
Internal bold after cyclic test	≥0,25	≥0,25	≥0,22	≥0,20	0,17	N/mm ²	EN 321
Swelling in thickness after cyclic test	≤12	≤12	≤12	≤11	≤10	%	EN 321
Formaldehyde content *	E1					class	EN 717-1

WINDOWSILLS

TECHNICAL DATA / TOLERANCES / DIMENSIONS

Substrate:	raw chipboard E1 according to EN-312
Substrate type:	P2, P5 according to EN 312
Lamination:	laminate CPL/HPL according to EN 438
Laminate thicknesses:	CPL standard thickness 0.4-0,7 mm; HPL standard thickness 0,5-0,8 mm
Reverse side:	covered by moisture resistant paper – weight minimum 105 g/m ² or CPL laminate thickness 0,25-0,30 mm - decors from Lamintex stock (white, beige, grey, solid colors, wood, fantasy or double lacquered foil – thickness 0,26 mm).
Nose:	for models 6060-P, 1010-P, 3030-P is made with chipboard - thickness 18 or 25 mm; for model 7474-P is made by MDF - thickness 18 mm.
Nose tolerance [mm]:	width/length/thickness +/- 0,5 mm
Standard lengths [mm]:	4100 and 3000 mm; 4150 and 3050 mm for glossy structure
Other lengths [mm]	from 2400 – 4150 mm depending on decor/ profile/ thickness
Length tolerance [mm]	+ 5 mm; - 50 mm
Standard widths [mm]	150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 700, 800 and 900 mm one side postformed; 305, 405, 505, 605, 705, 805, 905 mm both side postformed
Other widths [mm]	from 150 – 1200 mm depending on decor/ profile/ thickness
Width tolerance:	< 400 mm ± 2 mm ≥ 400 mm for each additional 100 mm plus ± 0.5 mm
Standard thicknesses:	16/18 [bolded to 38/40 mm with nose] or 18, 19, 22 and 28 mm without nose (25 mm as option or 18/50 LONG profile as option)
Thickness tolerance:	± 0.50 mm
Angular accuracy:	2.0 mm for every 1,000 mm in length per side
Straightness of cut:	0.5 mm for every 1,000 mm in length per side

Radius tolerance:	± 0.50 mm
Surface bonding:	D3 according to DIN EN 204
Postforming bonding:	D2 or D3 according to DIN EN 204
Back long edge:	impregnated paper edge min. 205 g/m² or melamine, CPL, HPL, PVC, ABS edges. Back cut as option (without paper edge)
Side short edges:	sanded or not sanded
Sealing:	models 5500, 6060 PUR hot adhesive melt (see details on pictures); models 6060-P, 1010-P, 3030-P and 7474-P – without sealing

STANDARD DIMENSIONS

Windowsills are available in standard lengths and widths, in dimensions specified by the customer or tailor-made, finished elements. Lamintex is able to cut and edge the windowsills to size required by customer.

Size range of blanks:

Width:	150-1200 mm
Length:	2400 mm to 4200 mm
Thickness:	16 mm to 50 mm (max. 55 mm with nose)

Size range of finished elements:

Width:	150 mm to 1200 mm
Length:	400 mm to 4200 mm
Thickness:	16 mm to 50 mm (max. 55 mm with nose)

Windowsills may be edged on short sides by paper, melamine, CPL, HPL, PVC, ABS edges (windowsills without nose).

Plastic caps molded to specified profiles available on request.

FLATNESS OF WINDOWSILLS IN A THICKNESS 16-28 MM

WARPING

Windowsills in a thickness spectrum of 18 mm to 28 mm	
Length and width	* Maximum permissible warping (concave/convex)
	CPL bonded to one side
<= 600 mm	1,0 mm
<= 700 mm	1,1 mm
<= 3 600 mm	10,0 mm
<= 4 000 mm	15,0 mm
<= 5 000 mm	20,0 mm

* referring to the face side of the element

DART DEFLECTION OF PARAMETRES – MODEL 6060-P, 1010-P

Windowsills on chipboard P2 – laminate 0,4 mm

Length	Width				
	150	200	300	400	600
3000	6 mm	5,5 mm	5 mm	4 mm	3 mm
4100	7,5 mm	7 mm	6,5 mm	5 mm	4 mm

Windowsills on chipboard P5 – laminate 0,4 mm

Length	Width				
	150	200	300	400	600
3000	6 mm	5,5 mm	5 mm	4 mm	3 mm
4100	7,5 mm	7 mm	6,5 mm	5 mm	4 mm

Windowsills on chipboard P5 – laminate 0,8 mm

Length	Width				
	150	200	300	400	600
3000	7 mm	6,5 mm	6 mm	5 mm	4,5 mm
4100	9 mm	8,5 mm	7,5 mm	6 mm	5,5 mm

ADDITIONAL NOTES

Leaking of the glue on reverse side of windowsills (connection between nose and chipboard) are not production defect. Small corrugations, irregularities on the profile's surface or radius surface are not production defect. The damages, scratches, defects on both windowsill's endings in length no more than 50 mm are not production defect. The dirties, grimes on the bottom and profiled surfaces of windowsills are not production defect. The damages, scratches, dirties, spots on the reverse side surface of windowsills are not production defect. The quality control always must be done under natural daylight.

CARE AND CLEANING RECOMMENDATIONS

Due to their resistant and hygienic, dense surfaces Lamintex windowsills do not require any special maintenance.

Surfaces are generally easy to clean. This also applies to textured surfaces.

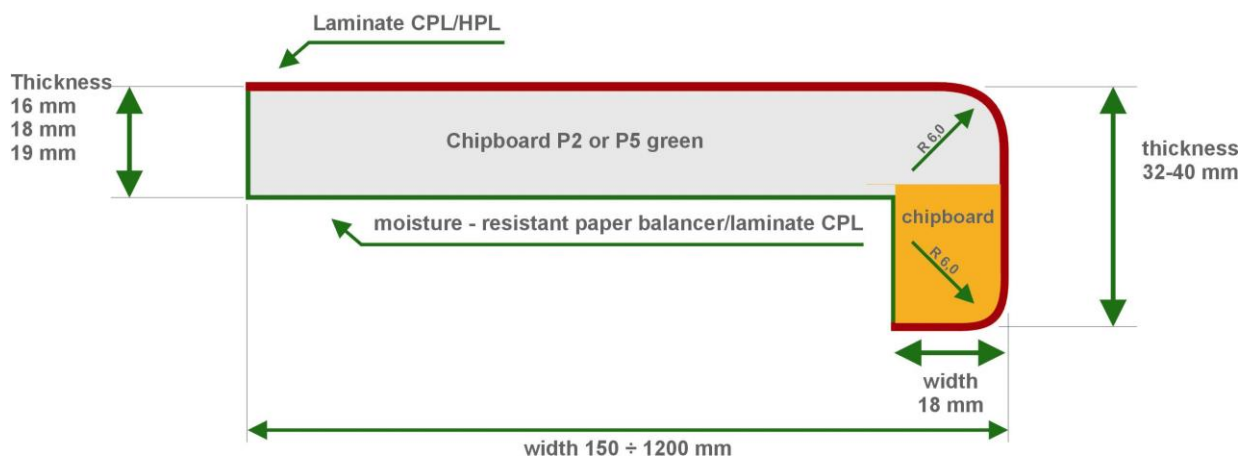
The details given in this data sheet are based on practical experience and in-door tests and reflect our current state of knowledge. They are for information only and do not constitute a guarantee with regard to product properties or suitability for individual application.

PACKING

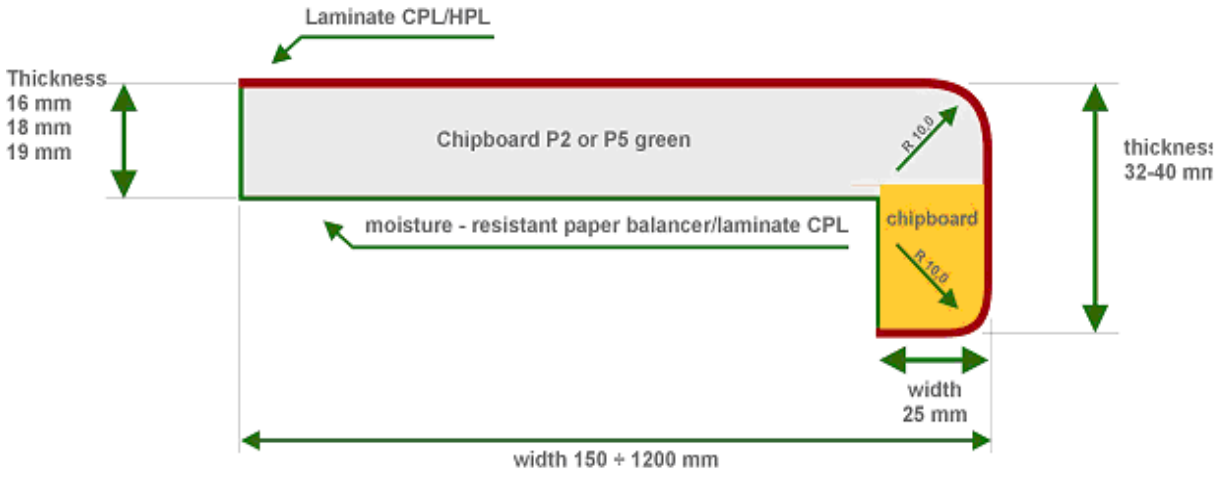
Company shall, at its expense, pack all Products in accordance with Company's standard packing system. However, if BUYER requests a modification of that packing system, SELLER shall make the requested modification and BUYER shall bear any reasonable expenses. Shrink foil packing of a single piece or two pieces is possible, additional edge strips, labels, EAN codes (with surcharges).

STANDARD PROFILE MODEL OPTION

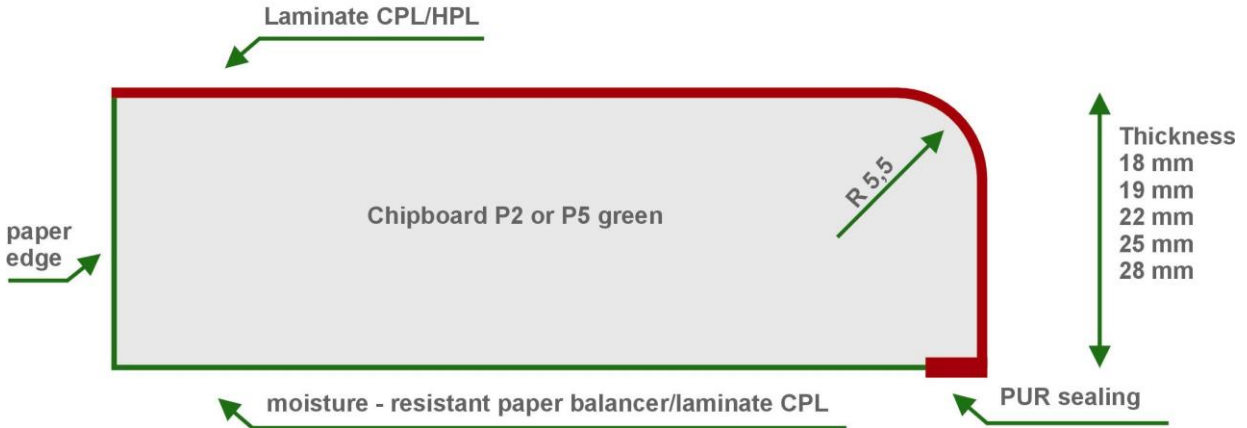
Profile 6060-P



Profile 1010-P

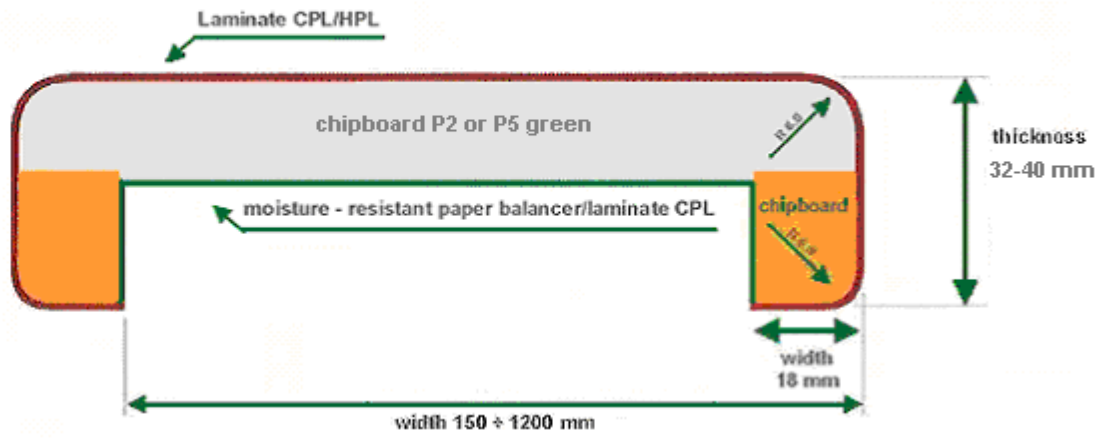


Profile 5500

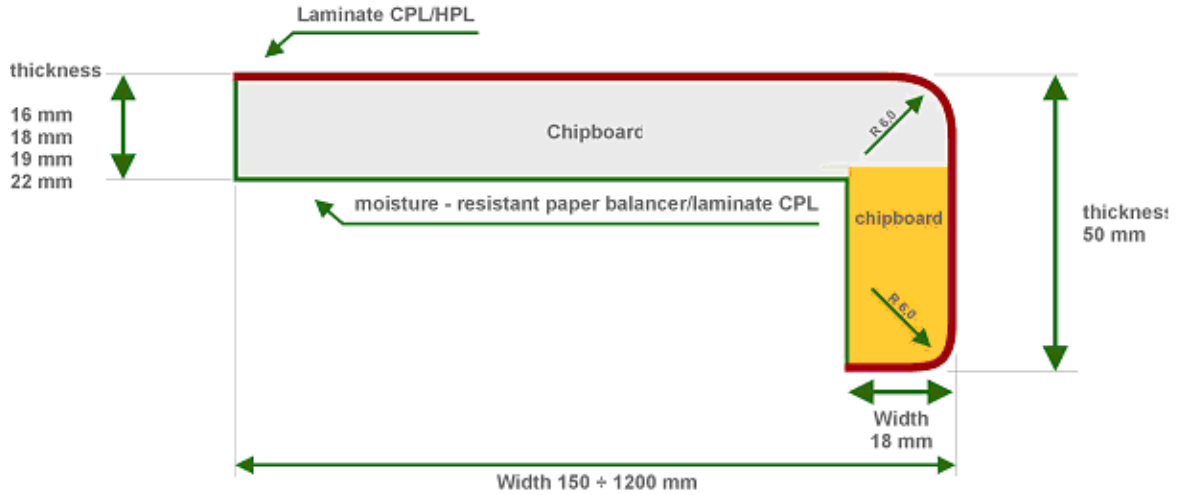


NON STANDARD PROFILE MODEL OPTION

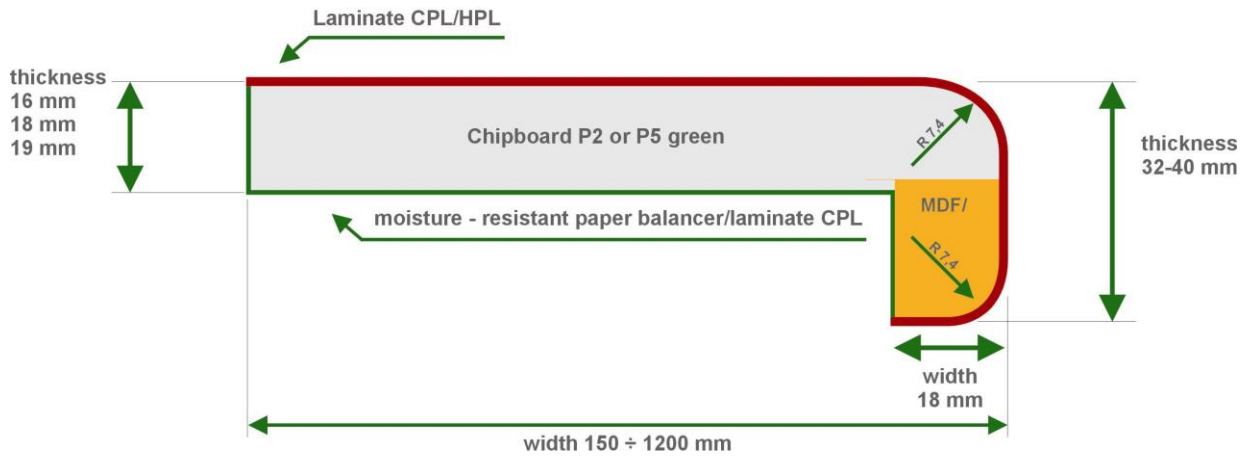
Profile 6060-P double



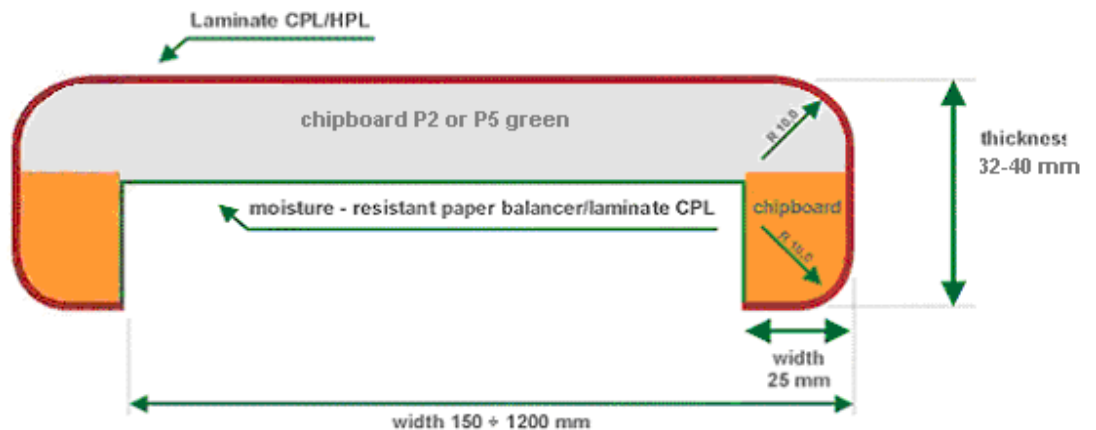
Profile 6060-P LONG



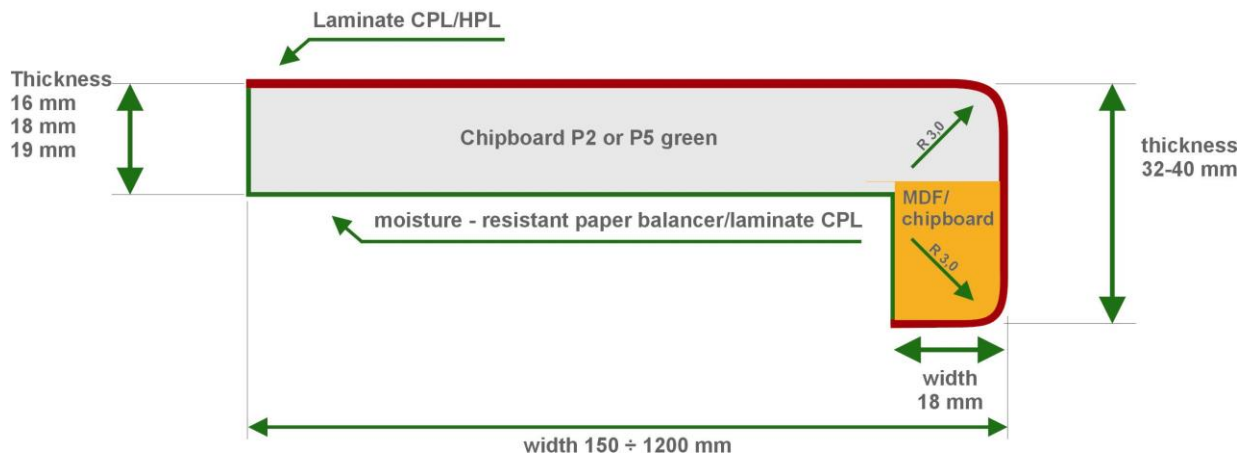
Profile 7474-P



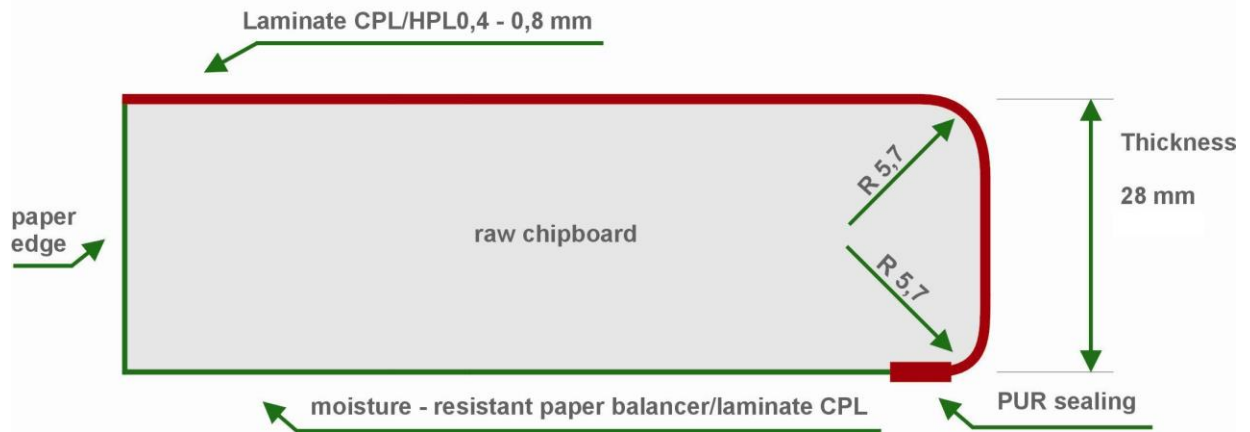
Profile 1010-P double



Profile 3030-P



Profile 6060



OTHER PROFILE MODELS POSSIBLE FOR SPECIAL REQUEST.