

BUSHBOARD

PRODUCT DATA SHEET Omega Upstands

1. MATERIAL DESCRIPTION AND COMPOSITION

Information described within this document is relevant for the composition of Bushboard Omega Upstand Products. These are constructed using high pressure laminates bonded to the front of the chipboard and brown melamine impregnated kraft paper to the back using adhesive.

1.1 Coating HPL

HPL are decorative high-pressure laminates (HPL) in accordance with EN 438 and ISO 4586.

HPL are sheets consisting of layers of fibrous cellulose (usually paper) impregnated with thermoset synthetic resins that cure under heat and high pressure. The process, a simultaneous application of heat ($\geq 120^{\circ}\text{C}$) and high specific pressure ($\geq 5 \text{ MPA}$), allows the flow and subsequent curing of the thermoset resins to obtain a homogeneous and non-porous material (bulk density $\geq 1.35 \text{ g/cm}^3$) with the required surface area.

More than 60% of HPL is generally made of paper and the remaining 30 to 40% is phenol-formaldehyde resin for core layers and melamine-formaldehyde resin for decorative top layer.

1.2 Coating back paper.

For stress balancing and protection of the carrier board from moisture penetration, a phenolic resin-impregnated backing paper is used.

1.3 Edge treatment

The square edge profile is milled, with ABS/PP edging applied.

1.4 Carrier plate

The carrier board (thickness 18mm) is a chipboard with the classification P2 according to EN 312 (normally flammable). HPL as well as the backing paper are glued to the carrier board with a PVAc (polyvinyl acetate) dispersion adhesive of stress group D3 according to EN 204. The leading edge can be milled, with ABS (acrylonitrile-butadiene-styrene) edge or profiled (postforming edge). A synthetic resin-impregnated paper edge is applied to the longitudinal edge on the back. The transition area on the underside HPL is made with a polyurethane seal. The formaldehyde emission according to DIN EN 13986 is classified in class E1.¹

2. EXECUTIONS

You can find all our Bushboard standard formats in the online Info book product range under www.bushboard.co.uk. In an extended range, you will receive the matching niche backsplashes for the worktops product.

¹ According to DIN EN 13501-1

3 SPECIFICATIONS

3.1 TECHNICAL PROPERTIES ACCORDING TO EN ISO 13894

Table 1 Technical characteristics

Property	Standard	Unit	HGP/HGS melamine resin surface
Physical Properties / Dimensions			
Density	EN 323	kg/m ³	550 ±10% (38mm)
	EN 322	%	
Length and width ²	ISO 13894	Mm	±3.0
Edge straightness ³	ISO 13894	mm/m	±0.5
Edge perpendicularity ³	ISO 13894	mm/m	≤2.0
Thickness tolerance	ISO 13894	mm/m	±0.4
Flatness deviation	ISO 13894	mm/m	2,0
Surface strength	ISO 13894	MPa	≥1.0
Tensile strength perpendicular to the plate plane	ISO 13894	MPa	≥0,20
Mechanical Properties			
Resistance to elevated temperature (short-term use)	ISO 13894		After 1 h at 80 °C, there should be no adhesive layer defects on the edges (reshaped or right-angled) or damage to the thermoplastic seal or safety edges occurs
Resistance to elevated temperature (long-term stress, e.g., windowsill)	ISO 13894		No visible changes, such as adhesive layer defects, color change or cracking in HPDL, Safety edges or sealing strips
Resistance to water vapor	ISO 13894		During the test, a slight swelling in the butt and surface areas of the Chipboard occurs - additional protective measures for composite elements are recommended, (directly above dishwashers and hobs)
Protection of the carrier material against water vapor (thickness swelling)	ISO 13894	Mm	≤0.1mm
Axial pull-out resistance of wood screws (screw holding capacity) for the surface	ISO 13894	N	≥1000
Axial pull-out resistance of wood screws (screw holding capacity) for the edge	ISO 13894	N	≥500
Surface impact resistance process with large ball	ISO 13894	Minimum products drop height 600mm. Max. impression diameter mm	≤10
Surface impact resistance process with small ball	ISO 13894	Min. spring force 15N	
Surface properties			
Dirt, stains, similar surface defects	EN 438-2-4	mm ² /m ² (max.)	1,0
Fibers, hair, scratches		mm/m ²	10
Resistance to surface abrasion	EN 438-2-10	Number of revolutions (min) Initial abrasion point	150
Resistance to water vapor	EN 438-2-14	Degree (min.) Gloss level surfaces Other finishes	3 4

² Panels with saw-cut edges

³ The values are given in mm per 1000mm measured length.

Property	Standard	Unit	HGP/HGS melamine resin surface	
			5	
Resistance to dry heat (160°C)	EN 438-2-16	Degree (min)		
		Glossy surfaces	3	
		Other finishes	4	4
Resistance to humid heat (100°C)	EN 438-2-18	Degree (min)		
		Glossy surfaces	3	
		Other finishes	4	5
Scratch	EN 438-2-25	Degree (min) ⁴		
		Glossy surfaces	2	
		Other finishes	3	4-5
Stain insensitivity	EN 438-2-26	Group 1 and 2	5	5
		Group 3	4	4
Light fastness (xenon arc lamp)	EN 438-2-27	Gray scale	4-5	4-5
Fire				
Fire ⁵ (Type HGP)	EN 13501-1	Building material class	-	
Health and Environment				
PEFC ⁷		%	On demand	
FSC			On demand	

3.2 OTHER TECHNICAL FEATURES FOR HPL

Table 2 other technical characteristics

Property	Description
State of matter	Firm
Solubility	Insoluble in water, oil, methanol, diethyl ether, n-octanol, acetone
Boiling point	None
Outgassing	None
Melting point	HPL do not melt
Calorific value	18 – 20 MJ/kg
Heavy metals	HPL does not contain toxic compounds based on Antimony / Barium / Cadmium / Chromium III / Chromium VI, Lead / Mercury / Selenium
Asbestos	HPL do not contain any components of asbestos
Pentachlorophenol (PCP)	No constituents present
Heavy metals	HPL does not contain toxic compounds based on Antimony / Barium / Cadmium / Chromium III / Chromium VI, Lead / Mercury / Selenium
Asbestos	HPL does not contain any ingredients
Pentachlorophenol (PCP)	HPL does not contain any ingredients
RoHS	HPL meets the requirements of EU Directives 2011/65, 2015/863 RoHS (Restriction of Hazardous Substances). RESOPAL HPL does not contain any of the following restricted substances: lead, mercury, cadmium, chromium, polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDEs), pentabromodiphenyl ether (pentaBDE), octabromodiphenyl ether (octaBDE); Bis(2-ethylhexyl) phthalate (DEHP) Butyl benzyl phthalate (BBP) Dibutyl phthalate (DBP) Diisobutyl phthalate (DIBP)
Safety Data Sheet	HPL sheets are not hazardous substances within the meaning of the Chemicals Act / special labeling or the creation of a safety data sheet is not required.
Stability	HPL are stable and durable; They are neither reactive nor corrosive
Dangerous reactions	none
Incompatibility	Strong acids or alkaline solutions can damage the surface
Extinguishing agent	Class A
Antistatic agents	HPL minimizes the generation of electrostatic charge due to contact charge or friction with other materials. It does not need to be grounded. The surface

⁴ To ≥ 90% continuous and clearly visible scratch marks: grade 1 – 1N, Grade 2 – 2N, Grade 3 – 4N, Grade 4 – 6N, Grade 5 – > 6N

⁵ Pay attention to details (e.g., classification report / Official Journal of the European Union); e.g., validity in combination with carrier board / adhesive system.

⁷ DSpecify this requirement when ordering

Property	Description
	resistance is $10^9 - 10^{12}$ ohms and the charging capacity according to DIN EN 61340-4-1 is $V < 2$ kV. Thus, HPL is an antistatic agent.

4 CERTIFICATIONS AND TEST REPORTS

Table 3 Certification

Property	Standard	Unit	HGP/HGS melamine resin surface
Emission of volatile organic substances (VOCs)	RAL UZ 76		Emission requirements fulfilled
Food safety	DIN EN 1186 / 13130 / CEN/TS 14234	Contact with food	Suitable
PEFC ⁷		Certification	On demand
FSC ⁷		Certification	On demand

5 STORAGE AND TRANSPORT

All Upstands are individually wrapped in plain shrink-wrap.

They will either have a 1500mm or full-length matching laminate edging strip depending on the product a Care and maintenance leaflet is also included.

HPL must be stored in a closed storage room under normal indoor conditions (10 – 30°C and 40 – 65% relative humidity). In addition, HPL must be protected from moisture and mechanical damage.

Storage and transport must be carried out over the entire surface, flat, horizontally and flush with the edges on a sufficiently large pallet, covered with a plastic film. The top laminate of each stack must also be covered with a protective film and weighed down with a cover plate (coated). These storage conditions must also be re-ensured, each time one or more plates are removed from the stack. Care must be taken to ensure that HPL is stored flat for a longer period, otherwise warping or deformation may occur. Where horizontal storage is not possible, it is recommended to tilt at an angle of 80° with full-surface support and a counter bearing on the ground to prevent slipping.

In addition, HPL must be transported on a horizontal, flat surface of sufficient size (e.g., pallet) to prevent the panels from slipping.

HPL is not considered dangerous goods under transport conditions, so labeling is not required.

6 HANDLING AND PROCESSING

Omega product is suitable for Laminated Upstands

The usual safety regulations regarding dust removal and fire protection must be complied with when working and processing. Due to possible sharp edges, protective gloves should always be worn when handling HPL. Contact with HPL dust does not cause any particular problems, but there are a limited number of people who may be allergic to all types of processing dust (and therefore also to HPL dust).

HPL is a wood-based product and continuously adapts to the environmental conditions in terms of dimensions. The product can be processed with woodworking machines.

BB Complete neutral panel adhesive comes in 290ml cartridges

BB Complete colour matched adhesive/sealant comes in 80ml and 290ml cartridges

All BB Complete cartridges will be suitable to be used with a C90 applicator gun and is temperature resistant between -40°C and 90°C

If Omega HPL is combined in combination with Omega Compact or Omega MFB on site, checks must be carried out to ensure that any deviation in the decorative colour between the two products is within the desired specification.

6.1 CONDITIONING

Good conditioning takes place in a moderate indoor climate (10 – 30°C and 40 – 65% relative humidity). These conditions are also recommended for the later place of use. These recommendations apply to temperate climates. If the Worktop product is exposed to persistently low humidity during its subsequent use, it is recommended to expose the product to a correspondingly low humidity or elevated temperature during air conditioning.

6.2 Recommendation according to AMK-MB-007⁸

Table 4 Requirements according to AMK

Section	Detail		Unit	Request
4.1	Corner connection	Distance between the plate connection and the built-in elements	Mm	≥300
4.2	Countertop cut-outs	Web thickness	Mm	≥50
	Distance sink between stove recess (observe manufacturer's instructions)	Distance sink between stove recess (observe manufacturer's instructions)	Mm	≥300 (Recommendation ≥900)
	Distance between installation elements and leading edge (observe manufacturer's instructions)	Distance between installation elements and leading edge (observe manufacturer's instructions)	Mm	≥50
5.3	Design Requirements	Area of appliance and dishwasher cut-outs / front edge area dishwasher area		Carry out additional constructive protective measures
	Connecting joints			Permanent protection against moisture – silicone is unsuitable for chipboard worktops
	Snippets			Round corners
	Edges			Attach chamfer
	Position hob (observe safety instructions for			For safety reasons, the hob must not rest against the cut edge (up to 150K

⁸ AMK - (Arbeitsgemeinschaft Die Moderne Küche) – MB (Leaflet)

Section	Detail		Unit	Request
	appliance manufacturers)			temperature difference according to DIN EN 60335 – T1 permissible)
	Protection front edge countertop area dishwasher		Mm	Depth ≥ 60 Protrusion right/left ≥ 50
5.4	Hot pot bottoms			No change (grade 5)* in humid heat (rating according to DIN EN 12 721) ≥ 100°C No change (grade 5)* in dry heat (rating according to DIN EN 12 722) ≥ 140°C * In the case of gloss surfaces, slight changes in gloss levels are permitted (grade 4) In general, we do NOT recommend placing hot objects on the RESOPAL Worktops

Kitchen furniture is usually made of wood-based materials. Wood-based materials are sensitive to moisture. Therefore, all areas that encounter moisture – e.g., lower edges of worktops above dishwashers, cut-outs, joints, etc. – need to be protected against moisture by appropriate measures.

6.3 Recommendation Contact with hot pan and pot bases.

The surfaces are tested according to the standard DIN 68861-7 Furniture surfaces- Part 7: Behavior in dry (e.g., hot pot/pan bottom). In general, we do not recommend placing hot pans and pots directly on the RESOPAL HPL surface. Always use a trivet between the RESOPAL HPL surface and a hot object.

Table 5 Contact hot pan, pot bottoms.

Property	Part in the DIN 68861 standard	Property/ Feature	ClaimuNGS Group	RESOPAL HPL
Resistance to dry heat*	7	Appearance (no visible change)		7B**

*In terms of resistance to dry heat, the laminate was tested according to DIN EN 438-2 on a standardised chipboard

**7A180°C (±2K)

7B140°C (±2K)

7C100°C (±2K)

7D 70°C (±2K)

7E 55°C (±2K)

Further information on the handling and processing of the RESOPAL HPL, products can be found in the technical data sheets for general processing.

7 CLEANING AND MAINTENANCE

7.1 HPL /

HPL is neither corrosive nor does it oxidize. It does not require any further surface treatment (e.g., with lacquers or paints). All decorative HPL surfaces can be cleaned with mild soap solutions. Stubborn stains (e.g., varnish) can be removed with organic solvents (e.g., ethanol, acetone). Abrasive cleaning aids (e.g., scouring powder, steel wool) must not be used, as these alter the surfaces.

Strong staining agents, such as wine, tea or coffee, and spices, etc., can leave light stains on laminate surfaces. To avoid aesthetic damage, it is imperative to clean these staining agents immediately after exposure. Please follow the instructions in our care sheets.

Please always carry out cleaning tests with every cleaning agent on non-visible areas at the beginning. If the cleaning agent is left to act on the dirt for a longer period, it can remove the surface contamination completely. At the same time, aggressive substances can change or damage the surface if they are left on for too long. Changes to the surfaces (e.g., micro-scratches, gloss deviations, dirt, grease stains...) caused by daily use are traces of use.

The visual perception of these changes is influenced by the decor and surface texture. In general, it must be observed on glossy and matt, smooth or deep textured surfaces. The traces of use are more visible on smooth surfaces and are even more emphasized in combination with dark decors. Deep textured surfaces exposed to repeated rubbing will show visible changes in the peak/elevated areas. To preserve the visual appearance, these advices must be observed during application and cleaning.

8 SUSTAINABILITY AND THE ENVIRONMENT

Wilsonart is ISO 9001, ISO 14001 and ISO 50001 certified.

HPL is a cured and therefore inert thermoset. The release of formaldehyde from Wilsonart worktops (< 0.05 ppm (in the test according to EN 16516) is below the legally permitted limit (< 0.1 ppm according to the Chemical Prohibition Ordinance).

The surface of the Worktops product may come into direct contact with all foodstuffs and can be safely used as intended in food processing and processing.

All timber-based materials including high pressure decorative laminates are in compliance with European Timber Regulation 995/2010 and are sourced from PEFC Certified, or other Chain of Custody Certified or Controlled Wood supplies. In addition, all papers used (core paper and decorative paper) come from non-controversial or controlled sources and corresponding requirements for EUTR Regulation (EU) No. 995/2010.

Worktops are a product and not a chemical substance, so the REACH regulation does not apply. Nevertheless, it is important to ensure an exchange of information with raw material suppliers regarding REACH-relevant components (see also technical data sheet of the REACH Regulation).

9 WASTE DISPOSAL AND ENERGY RECOVERY

Omega Worktops can be disposed of via controlled waste disposal facilities (e.g., landfills) that comply with current national and regional regulations. HPL waste is classified according to the European Waste Catalogue Regulation with the code 200301 (mixed municipal waste).

This means that Omega Worktops panels meet the requirements for energy recovery in accordance with § 8 of the Closed Substance Cycle and Waste Management Act. In modern, officially approved industrial combustion plants, the conditions for efficient combustion processes are created. The ash from these incineration processes can be disposed of in controlled landfills.

10 SCOPE

Typical applications according to

- Kitchen countertops
- Cheeks
- Breakfast counters
- Attachment tables

11 OVERVIEW OF THE ABOVE TECHNICAL DOCUMENTS

General

HPL_Kompendium

Certification and test reports

RoHS Declaration of Conformity

Declaration of safety ISEGA (contact with food harmless)

Cleaning and maintenance

Data sheet cleaning and maintenance

Resistance RESOPAL HPL

Disinfectant resistance RESOPAL HPL

Sustainability and the environment

PEFC certificate

Certificate FSC

Certificate DIN EN ISO 14001

Certificate DIN EN ISO 50001

REACH Regulation

LEED rating system

Environmental product information

All information contained in this data sheet is based on the current state of technical knowledge, but does not constitute a guarantee. No guarantee is given as to suitability for specific purposes or applications.