

# DURO PAL

## Quadra 3mm Profile Worktops



*With Duropal you're covered in all directions...*

## Quadra Worktops

You can rest assured we have tested Duropal worktops for all possible kinds of wear, and testing is an ongoing process. Duropal applies the most rigorous tests there are for HPL surfaces. Every worktop leaving the Duropal factory is subject to normal testing and rigorous final inspection. The following 12 examples show you the advantages which Duropal can offer in everyday kitchen conditions. **DUROPAL**



**Resistant to coffee stains.**  
Hot coffee or tea simply wipe off, even after several hours.

**Resistant to red wine stains.**  
Red wine, fortified wine, spirits or red cabbage stains are easy to wipe off, even the next day.

**Resistant to ink stains.**  
Ink or shoe polish can be wiped away after many hours without leaving any stains.

**Resistant to high impact.**  
High impact resistant Duropal worktops will withstand object such as tins of food falling from cupboards onto the surface.

**Resistant to chemicals.**  
Household chemicals or detergents will not affect Duropal worktops.

**Resistant to wear.**  
The extremely hard-wearing properties of Duropal worktops ensure that utensils will not damage the surface.

**Resistant to ultraviolet light.**  
Daylight, ultraviolet radiation, neon light... The colour of Duropal worktops will not fade.

**Resistant to scratching.**  
The tough melamine resin surface provides the decor with the best possible protection against scratching.

**Resistant to cigarette burns.**  
No cracks, blisters or burns occur if a cigarette is left burning on the surface - the marks on the surface can simply be wiped away.

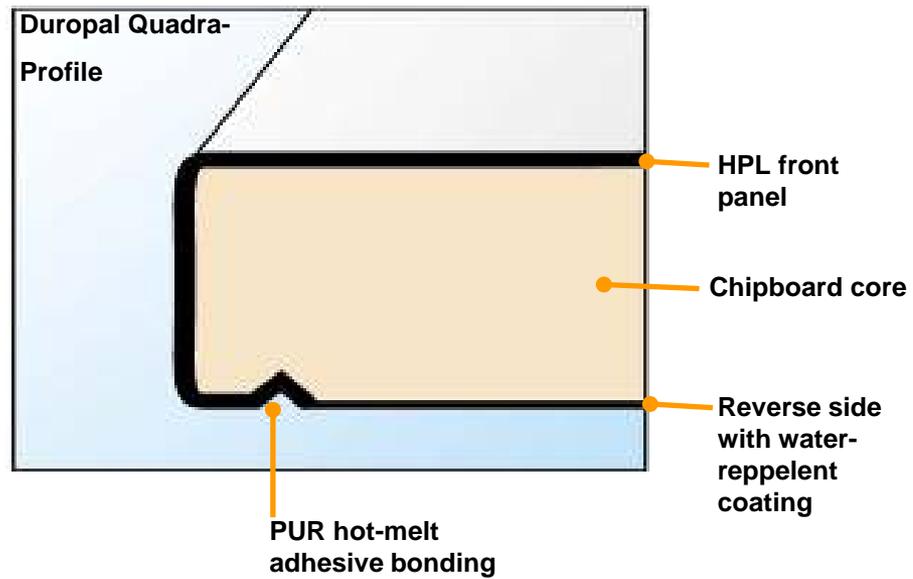
**Resistant to hot pans.**  
Duropal is very resistant to high temperatures (e.g. vegetables in boiling water), but for frying pans and casseroles straight from the oven, use a protective pad.

**Resistant to fruit juice.**  
Citrus fruit, milk and vinegar stains are easy to remove from the surface.

**Resistant to steam.**  
Steam from domestic appliances or boiling water have no effect.



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The high resistance against mechanical, thermal and chemical impacts make Duropal worktops ideally suitable elements for worktops, tables and counters in kitchens, restaurants, banks, canteens, medical practices and laboratories.

All Duropal worktops are faced with fully cured High Pressure Laminate (HPL). Fully cured postforming grade HPL ensures a totally sealed surface which is extremely stain, scratch and impact resistant.

The overlay and décor papers are melamine impregnated – one of the hardest materials available for this use.

The core is phenolic impregnated facilitating the postforming process. Impact resistance, durability and scratch resistance all meet, and in most cases, exceed BS/EN 438 requirements.

The glue line is especially formulated by Duropal for maximum bond strength, heat and moisture resistance. The high-quality PUR hot-melt adhesive bonding between worktop, HPL décor and overlay (Quadra and Classic profiles) is currently unique on the market and has a two-fold purpose:

- Excellent sealing properties between worktop, HPL décor and overlay.
- Profiled edge to protect floor cupboards against penetrating water as above dishwashers and laundry appliances.

A further advantage of the Duropal worktop is the water and vapor barrier properties of the lamination on the reverse side, for which Duropal uses a special overlay. The result is a coating that is both water and vapor resistant. The Duropal overlay is often only “visually” comparable with that of our competitors.

The back edge is sealed and protected with a white melamine strip .

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technical data	test reference		test results
			Duropal Quadra Benchtops

HPL surface properties - DIN EN 438			
<b>resistance to surface abrasion</b> - printed designs (conventional) - plain designs	DIN EN 438-2 (10) - HGP	≥350 revs [(IP+FP)/2]	≥375-500 revs ≥500-700 revs
<b>resistance to surface scratches</b> - deep textures - medium textures	DIN EN 438-2 (25) - HGP	level 3	level 4 level 3
<b>impact resistance</b>	DIN EN 438-2 (20) - HGP	≥20 N	≥20 N
<b>resistance to boiling water</b> - glossy surfaces - other surfaces	DIN EN 438-2 (12) - HGP appearance	level 3 level 4	min. level 3 depending on surface texture level 4-5
<b>resistance to dry heat (180°C)</b> - glossy surfaces - other surfaces	DIN EN 438-2 (16) - HGP appearance	level 3 level 4	min. level 3 depending on surface texture level 4-5
<b>light fastness</b> (xenon arc lamp)	DIN EN 438-2 (27) - HGP grey-scale	4-5	≥4
<b>stain resistance</b> - substances group 1&2 - substances group 3	DIN EN 438-2 (26) - HGP appearance	level 5 level 4	level 5 min. level 4

38mm P3 & Hydrofuge particle board core material - DIN EN 312			
<b>bending resistance</b>	EN 310		9 N/mm <sup>2</sup>
<b>transverse tensile strength</b>	EN 319		0.3 N/mm <sup>2</sup>
<b>bending coefficient of elasticity</b>	EN 310		1,550 N/mm <sup>2</sup>
<b>thickness swelling</b>	EN 317		12%
<b>internal bond (after boiling test)</b>	EN 1087-1		0.06 N/mm <sup>2</sup>
<b>coefficient of shrinkage &amp; swelling</b>	DIN EN 312		0.025% per 1% change in humidity of the panel
P3 is made in accordance with DIN EN 412. All values are obtained from our production and are for "guidance only"			

<b>formaldehyde emission E1</b>	EN120	< 8 mg HCHO / 100g board <sup>2)</sup>	< 6.5 mg HCHO / 100g board <sup>1)</sup>
<b>formaldehyde emission EPFS E0</b>	JIS A 5908 / JAS 1460	< 0.5 mg HCHO / ltr	< 0.5 mg HCHO / ltr

1) half year average

2) for raw board

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05.11.2010 VL      **EO - according to Japanese Standard "desiccator" test method**

contrary to the European "climate room" test method, where formaldehyde emission in the air is tested, JIS measures in a closed glass container partly filled with water, how much formaldehyde gets into the water.

Different countries / different product descriptions;  
formaldehyde emission based on JIS 5908 (test JAS 1460):

Japan	F****E0	$\leq 0.3\text{mg / ltr}$	
	F*** E0	$\leq 0.5\text{mg / ltr}$	
Australia	E0	$\leq 0.5\text{mg / ltr}$	
USA	CARB II	$\leq 0.5\text{mg / ltr}$	
Europe	CARB II	$\leq 0.5\text{mg / ltr}$	
	EPFS	$\leq 0.5\text{mg / ltr}$	(see also IKEA grade 1/2 E1)