

LIRI
INDUSTRIALE®

*coordinated
decorative
surfaces*



UNICHROME

full colour HPL

ENVIRONMENT SYSTEM CERTIFIED ISO 14001
QUALITY SYSTEM CERTIFIED ISO 9002

HIGH PRESSURE LAMINATE

LIRI

UNICHROME

Full Color HPL

Unichrome is a solid color high pressure laminate showing a uniformity of color in the whole thickness. Its core is made with the same decorative paper used for the surface, instead of the traditional brown kraft paper. It can be produced with one or two decorative sides.

The main aesthetic advantage of this laminate is the absence of the brown edge. Once bonded or machined, the colored edge of Unichrome will enhance the solidity of the panel. Unichrome is showing on the surface more brilliant colors than the corresponding ones produced in traditional grades, thus they are sometimes not a perfect match to the traditional ones.

The technical vantage of Unichrome is its extremely high abrasion resistance. Unichrome is then advisable to be used in high traffic areas. Moreover, it is a Class 1 material. Thanks to its natural good behavior to fire.

Unichrome is offered in Opaca finish to be able to obtain a surface characterized by a very pleasant and soft touch. Moreover, Opaca surface finish has a perfect degree of cleanability.

Unichrome can be produced in the size 3050 x 1300 (51"x120") in the minimum thickness of 1.0 mm and in the maximum thickness 12 mm.

Handling and Transport

Unichrome is more fragile than a traditional laminate. Only a maximum of three sheets can be rolled and ship in a carton box. Rolling and unrolling of the material should be handled very carefully. Please call your local supplier for information on handling and transport.

Cutting and Machining

Unichrome is more brittle and fragile than a traditional laminate. It should be cut and machined with particular care to chipping. It is advisable to use a moderate cutting speed.

Drilling

The holes and cut outs should never present chipping and sharp corners, which could cause cracking.

Counter veneering

When bonded, Unichrome should always have its reverse side bonded with an analogous product. In fact a traditional laminate cannot balance the tension of Unichrome. Preliminary trials are advisable.

Gluing

The glue to be used is the same advised for a traditional laminate, with the exception of contact glue which because of the scarce effective bonding surface could cause cracking of the laminate.

Particular advice

Unichrome should never be used in areas with very low relative humidity, like for example heater shelves, where shrinking of the product may generate cracks.

UNICHROME full colour HPL			Thickness in mm	1	2 - 3	4 - 6	8 - 10	12
property	test	test procedure	unit of measure					
density	ISO 1183	weight in kg of a dm ³ of laminate or 1 m ² in thickness 1,0 mm	kg/dm ³	1,4	1,4	1,4	1,4	1,4
wear resistance	EN 438	the Taber test measures the number of cycles necessary to abrade the laminate surface with sand paper. IP is Initial point, when colour begins disappearing	Taber cycles IP starting point	> 1000	> 1000	> 1000	> 1000	> 1000
thickness tolerance	EN 438	measures the difference between the nominal thickness and the actual laminate thickness	mm	+/- 0,10	+/- 0,20	+/- 0,40	+/- 0,50	+/- 0,60
flatness tolerance	EN 438	measures the maximum curvature expressed in mm/m of a laminate layed flat with the concave side up	mm/m	60	5	5	3	3
dimensional tolerance	EN 438	measures the difference between the nominal and the actual dimensions of length and width	mm	-0/+10	-0/+10	-0/+10	-0/+10	-0/+10
straightness of edges	EN 438	measures the difference allowed for each meter of edge from perfect linearity	mm/m	1,5	1,5	1,5	1,5	1,5
squareness	EN 438	measures the difference allowed for each meter of edge from perfect orthogonality	mm/m	1,5	1,5	1,5	1,5	1,5
flexural modulus	ISO 178	measures the minimum force per mm ² necessary to break a laminate suspended on two pins	N/mm ²		8000	8000	8000	8000
flexural strength	ISO 178	measures the minimum force per mm ² necessary to break a laminate suspended on two pins and undergoing compression	N/mm ²		90	90	90	90
tensile strength	ISO 527	measures the minimum force per mm ² necessary to break a laminate clamped on two edges and undergoing traction	N/mm ²		70	70	70	70
resistance to impact by large diameter ball	EN 438	measures the height from which a large ball can be dropped without incurring visible surface cracking of a laminate covered with a sheet of carbon paper	mm (MIN)	800	1400	1800	1800	1800
resistance to moisture	EN 438	measures the mass increase and the change in appearance of a laminate immersed in water at 65°C for 48 hours	grade		4	4	4	4
dimensional stability at elevated temperature	EN 438	measures the lateral dimensional change of a laminate over an extreme range of relative humidities at elevated temperatures	% longitudinal % transversal	0,55 1,05	0,35 0,75	0,30 0,50	0,30 0,50	0,30 0,50
resistance to colour change	EN 438	measures the change in colour of a laminate exposed to the light of a xenon arc lamp and compared to a blue wool scale going from 1 to 8, being 8 the best result.	blue wool scale	≥ 6	≥ 6	≥ 6	≥ 6	≥ 6
superficial electrical resistance	CEI 15-23/97	measures the electrical resistance between two electrodes on which a 1000 volts tension has been applied	Ohm	1x10 ⁹ : 1x10 ¹¹ antistatic	1x10 ⁹ : 1x10 ¹¹ antistatic	1x10 ⁹ : 1x10 ¹¹ antistatic	1x10 ⁹ : 1x10 ¹¹ antistatic	1x10 ⁹ : 1x10 ¹¹ antistatic