

HIGH DEFINITION PRINT

Product: High Definition Print	
Description:	Printed and coated decorative foil with superior print quality and excellent chemical and mechanical properties
Designs:	All designs out of the Chiyoda collection are available
Basepapers:	60 and 80 gsm papers
Topcoats:	Acid-curable (WB and SB), Radiation-curable, Recoatable
Glosslevels:	Min. 10, Max. 80 (60°)
Surface textures:	Smooth finish, Optical embossing, Chemical embossing, Recoatable
Applications:	For furniture surfaces, wall and ceiling panels and profiles
Substrates:	Particleboard, MDF or HDF
Processing:	Roller lamination, panel wrapping and profile wrapping with various glue systems
Resistances:	Good mechanical and chemical resistances
Storage:	Max. 6 months in the original packing (23°C, relative humidity 50%)

CHEMICAL RESISTANCE

R4, R2 in accordance with IKEA R4, R2 standard IOS-MAT-0066.

The following table shows a comparison test between a standard post-impregnated paper, a standard pre-impregnated paper (Chiyoda, acid-curable SB topcoat) and High Definition Print.

	HDP	Post-impregnated	Pre-impregnated
Water, 24h	5	2	2
Paraffin oil, 24h	5	2	2
Coffee, 1h	5	2	2
Water/Ethanol, 1/1, 1h	5	2	4
Ethanol, 1h	5	4	5
MEK, 1h	5	5	5

Result interpretation:

- 5: No visible changes
- 4: Recognizable changes in gloss level or color
- 3: Small changes in gloss level or color; no structure change
- 2: Strong visible marks; no structure change
- 1: Strong visible marks; structure change
- 0: Test material is strongly changed or disturbed

MECHANICAL RESISTANCE

MICRO SCRATCHES (HAMMER TEST)

The test surface is exposed to 100 single movements of a 1,5kg hammer provided with a 3M Scotch-Brite™ abrasive. The gloss level difference of the substrate after the exposure is a value for the resistance against micro scratches.

The following table shows a comparison test between a standard post-impregnated paper, a standard pre-impregnated paper (Chiyoda, acid curable topcoat SB) and High Definition Print.

	HDP	Post-impregnated	Pre-impregnated
Initial gloss level (60°)	14,8	19,3	22,7
Gloss level after testing (60°)	13,0	8,0	12,9
Δ Gloss level (60°)	1,8	11,3	9,8

SCRATCH RESISTANCE

A comparison test between a standard post-impregnated paper, a standard pre-impregnated paper (Chiyoda, acid-curable topcoat SB) and High Definition Print.

The test surface is exposed to the movements of a wooden spatula where a constant force of 30N is applied. The number of movements reached when the coating surface is clearly damaged is a value of the scratch resistance (= critical point CP).

	HDP	Post-impregnated	Pre-impregnated
CP	110	40	48

LIGHT FASTNESS

Blue wool scale rating: ≥ 6 , according ISO 105-B02: Colour fastness to artificial light: Xenon arc fading lamp test.

FORMALDEHYDE EMISSION

The formaldehyde emission is meeting the E1 level of the standard NBN EN 717-2: Determination of the formaldehyde emission according the gas analysis method.

FA-emission $< 3,6$ mg FA/h.m²