



Substrate Evaluation Report

For the HP Indigo 5500

Customer Name: Nekoosa Coated Products

Customer Address: 841 Market St.
Nekoosa, WI 54494

Substrate Name: Nekoosa U20 CFB

Substrate Type: Carbonless Canary

Weight: 78gsm / 21#

I.D. Number: RI5500-10-1721

Date of Evaluation: 02/15/10

Caliper: 0.0044" / 112 Micron

Evaluation Site: RIT

Evaluation Process: Full

Evaluation	Measure	Result	Grade (# Stars)	Notes
Runability			* * *	Pass †‡
Simplex	# Jams	0		Pass
Duplex	# Jams	-		-

Fixing			* *	Pass††
Peeling	100% K in 4 color mode, % ink remaining	82.8%		Pass
Flaking	<1 mm, % Coverage	400%		Pass
Photo Peeling	290% K for photo app., % ink remaining	N/A		N/A
Photo Flaking	<1 mm, % Coverage	400%		Pass

Blanket Compatibility			* * *	Pass
Evaluation Result	Pass/Fail	Pass		Pass

Note Detail:

†Not recommended for high-speed monochrome printing.
 ‡Not recommended for Duplex printing.
 ††Substrate did not meet minimum qualifications to pass Photo App. This does not negatively impact overall Fixing rating.



The substrate certification procedure incorporates several processes. An initial screening evaluation is followed by a more comprehensive evaluation looking at the performance of the particular substrate within the press. This checks for:

- Runability:** The ability of the substrate to run smoothly through the press.
- Fixing:** Ink-substrate interaction as reflected in: The degree of ink fixing to the substrate for standard and photo-related applications—the adhesion as measured in a tape peel test of the image. The degree of flaking of the ink layer. The fixing properties are measured through a range of blanket temperatures and pressures.
- Photo App.:** Use of robust media products are strongly recommended when printing photo-related applications and/or Light Cyan and Light Magenta due to additional ink coverage demands of these applications. This media has been tested and approved to perform well with higher levels of ink coverage, and are therefore recommended for photo-related type applications. However, it is strongly recommended that user acceptance ultimately be evaluated per individual application and finishing requirement (s), etc. This test result information is provided as a guide; assess actual performance further to determine appropriateness for individual use.
- Blanket Compatibility:** Ink-transferability—the quality of ink transfer from the blanket to the substrate as reflected in highlight dots, thin lines, heavy images and image edge integrity. Blanket-substrate compatibility—the interaction between the substrate and the blanket is checked for ‘Blanket Memory’ effect, reflected in gloss or density differences between solids and background areas of the previously printed image. Cleaner pages—Blankets are routinely maintained by running “cleaner pages”, a self cleaning method used to refresh the blanket’s release layer.

Star Rating

- *** 3 stars: best performing papers; fewer print cleaners needed; no blanket memories at least up to 12K impressions.
- ** 2 stars: recommended papers; some print cleaners may be needed; slight memories may be seen at 12K impressions.
- * 1 star: good papers; print cleaners generally required; some memories may be seen at 12K impressions. Approved tape test, after one hour.

		***	**	*
Measure		Best-performing paper	Recommended paper	Good papers
Transport	Runability	No jams or other issues	1 jam or minor issues	1 jam or minor issues
Fixing	Peeling: 100% K, 10 minutes	>90%	>80%	>80% at one hour
	Flaking: guillotine, 5 minutes	<1 mm at 200% K	<1 mm at 200% K	<1 mm at 200% K
	Photo peeling: 290% K, 10 or 60 minutes	>80% after 10 or 60 min	>80% after 10 or 60 min	Not applicable
	Photo Flaking: guillotine, 5 minutes	<1mm at 350% K	<1 mm at 350% K	Not applicable
Blanket compatibility	Cleaner pages OK after 12K	2nd cleaner page clean	4th cleaner page clean	6th cleaner page clean