



Commercial Substrate Evaluation Report

Certified for **HP Indigo**

Supplier Information								
Supplier Name	Arctic Paper Munkeda	Arctic Paper Munkedals AB						
Supplier Address	Bruksvägen, Munkeda	Bruksvägen, Munkedal, SE-45581						
Supplier Country	Sweden	Sweden						
Product Information								
Product Name	Munken Polar ID	Munken Polar ID						
Product Category	Paper	Paper						
Grammage (gsm) / Basis weigh	nt (#) 240 gsm		Thickness (microns/caliper) 271 um					
Certification Number	RI5500-16-4892	RI5500-16-4892		Certification Center		RIT		
Date of Evaluation	12/14/2016		Evaluated on	Interpolation				
Certified for	5500, 5600 multi-shot	, 7000, 7	00					
Evaluation Process	Interpolation	Interpolation						
Evaluation	Measurement		Result	Gr	rade (stars)	Comments		
Runability								
Simplex	Number of Jams			***				
Duplex	Number of Jams							
Ink Adhesion / Fixing					***			
Peeling	100%K in 4 color mode, % in remaining							
Flaking	<1mm, % Coverage							
Photo Peeling	290K in 4 color mode, % in remaining							
Photo Flaking	<1mm, % Coverage							
Photo Recommended	>80% after 10 or 60 min							
White Ink Recommended	>80% after 10 or 60 min							
Blanket Compatibility				A A	<u> </u>			
Cleaner Pages	1st clean page after 12K impressions			***				
Evaluation Result		Pass						

Comment Detail:

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:

Runnability:

The ability of the substrate to run smoothly through the press in various print modes.

Fixing:

Ink-substrate interaction as determined by: 1) The degree of ink adhesion to the substrate for standard and photo-related applications as measured in a tape peel test of the image; and 2) The degree of flaking of the ink layer. The fixing properties are measured through a range of blanket temperatures and pressures.

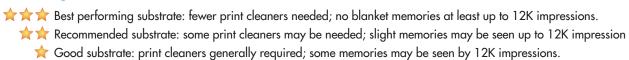
Blanket Compatibility:

Blanket-substrate interaction as determined by: 1) Ink-transferability, which is the quality of ink transfer from the blanket to the substrate as reflected in highlight dots, thin lines, heavy images and image edge integrity; 2) 'Blanket Memory' effects, reflected in gloss or density differences between solids and background areas of the previously printed image; and 3) Number of cleaner pages, in which blankets are routinely maintained by performing a self cleaning procedure ("cleaner pages") used to refresh the blanket's release layer.

Photo and White Ink Applications:

Use of robust media products is strongly recommended when printing photo-related and/or white ink 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 is therefore recommended for photo-related and/or white ink type applications. However, it is strongly recommended that user acceptance ultimately be evaluated per individual application and finishing requirements, etc. The test results are provided as a guide; assess actual performance to determine suitability for individual use.

Star Rating



		***	☆☆☆ ☆☆		
Evaluation	Measurement	Best-performing	Recommended	Good	Failure
Transport	Runnability	No jams with the tested paper	No more than 1 jam or minor issue with the tested paper	No more than 1 jam and minor issues with the tested paper	2 jams with the tested paper, control performs well
Fixing	Peeling	ing All 4 results are ≥ 90% All 4 resu		At least 1 result is ≥ 80%	All results < 80%
Flaking Guillotine, 5min ● Coated		All results are > 250%	At least 1 result is > 250%	At least 1 result is > 200%	Results < 200%
Flaking Guillotine, 5min ● Uncoated		Result is > 300%	Result is > 250%	Result is > 200%	Results < 200%
Photo	Peeling 290% Black	Result is > 80% after 10 or 60 minutes		N/A	Results < 80%
	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1 mm
Blanket Compatibility	Cleaner Sheets 1ª Red is clean		3™ Red is clean	5 th Red is clean	5th Red not clean, or White observed
	Monitors on tested paper and reference glossy paper Very minor memories at least up to 12K impressions		Slight memories may be seen up to 12K impressions	Some memories may be seen by 12K impressions	Severe lack of dots/cracks/gloss memory

This substrate is certified for the next two years from the date of evaluation, provided there is no change to the paper properties or production processes. At the end of two years from the original evaluation date, if there have been no changes in paper properties or production processes, the certification can be extended for another two years. After four years from the original certification date, a new certification is required.



