



Supplier Information

Commercial Substrate Evaluation Report

Certified for **HP Indigo**

Supplier Name		Arctic Paper Munkedals AB								
Supplier Address		Bruksvägen, Munkedal, SE-45581								
Supplier Country		Sweden								
Product Information										
Product Name		Munken Polar Rough ID								
Product Category		Paper								
Grammage (gsm) / Basis weight (#)		300 gsm		Thickness (microns/caliper)		420 um				
Certification Number		RI7500-18-5283		Certification Center		RIT				
Date of Evaluation		04/30/2018		Evaluated on	HP 7500					
Certified for		7500, 7000, 7600, 7800, 7900, 10000 & 12000								
Evaluation Process		Full								
Evaluation		Measurement		Result	Grade (stars)		Comments			
Runability										
Simplex		Number of Jams	0		***					
Duplex		Number of Jams	0							
Ink Adhesion / Fixing					**	*				
Peeling	1	100%K in 4 color mode, % in remaining					Delamination			
Flaking		<1mm, % Coverage								
Photo Peeling	2	290K in 4 color mode, % in remaining					Delamination			
Photo Flaking		<1mm, % Coverage								
Photo Recommended	>8	80% after 10 or 60 min	Yes							
White Ink Recommended	>8	80% after 10 or 60 min								
Blanket Compatibility					<u> </u>					
Cleaner Pages	1:	st clean page after 12K impressions	1		***					
Evaluation Result			Pass				·			

Comment Detail: Delamination - Assumed value is 3 stars. During the peel test, the ink adhered sufficiently to the paper to cause tearing. No data can be obtained from this peel test.

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.

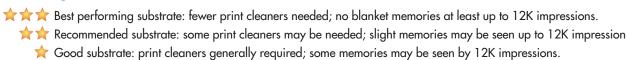
Blanket Compatibility:

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	All 4 results are ≥ 90%	All 4 results are ≥ 80%	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%
Photo	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1mm
Blanket	Cleaner Sheets	1ª Red is clean	3™ Red is clean	5 th Red is clean	5th Red not clean, or White observed
Compatibility	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.



