



Substrate Name Munken Kristall ID

Thickness / Weight 117 um 90 gsm

Certification Date Interpolation

Certification Number RI5500-17-5120

This substrate is hereby certified for HP Indigo digital press(es) 5500, 5600 multi-shot, 7000, 7500, 7600, 7800, 7900, 10000 & 12000

For star ratings, please refer to the HP Indigo Media Solutions Locator
This substrate has been evaluated under the standard comprehensive
testing procedure, in conjunction with HP Indigo R&D substrate certification criteria.

Please note: By certifying your product this means you support its use on HP Indigo equipment and its uses, and that you will perform any due diligence necessary should complaints arise. Further, by receiving approval, you agree that if there are any manufacturing or product changes that may impact substrate performance you will have the product re-tested/re-certified, to eliminate the risk of issues in the field as a result. Certification is valid for 2 years, at which time if there are no changes to paper properties or production processes, the certification can be extended for another two years. After 4 years from the original certification date, a new certification is required.

Certified for **HP Indigo**







Comment Detail:

Commercial Substrate Evaluation Report

Certified for **HP Indigo**

Supplier Information							
Supplier Name	Arctic Paper Munkeda	ls AB					
Supplier Address	Bruksvägen, Munkeda	I, SE-45	581				
Supplier Country	Sweden						
Product Information							
Product Name	Munken Kristall ID	Munken Kristall ID					
Product Category	Paper						
Grammage (gsm) / Basis weigh	t (#) 90 gsm		Thickness (microns/	caliper)	117 um		
Certification Number	RI5500-17-5120		Certification Center		RIT		
Date of Evaluation	05/23/2017		Evaluated on		Interpolation		
Certified for	5500, 5600 multi-shot,	7000, 7	500, 7600, 7800,	, 7900,	10000 & 12000		
Evaluation Process	Interpolation						
Evaluation	Measurement		Result	Gı	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					

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.

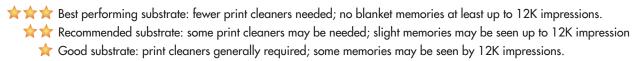
Blanket Compatibility:

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 Guille	otine, 5min ● Coated	All results are > 250% At least 1 result is > 250%		At least 1 result is > 200%	Results < 200%
Flaking Guilla	tine, 5min • Uncoated	Result is > 300% Result is > 250%		Result is > 200%	Results < 200%
Photo	Peeling 290% Black	Result is > 80% o	ıfter 10 or 60 minutes	N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1 mm
Blanket	Cleaner Sheets	1ª Red is clean	3 rd 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









Substrate Name Munken Kristall ID

Thickness / Weight 113 um 100 gsm

Certification Date Interpolation

Certification Number RI5500-17-5121

This substrate is hereby certified for HP Indigo digital press(es) 5500, 5600 multi-shot, 7000, 7500, 7600, 7800, 7900, 10000 & 12000

For star ratings, please refer to the HP Indigo Media Solutions Locator
This substrate has been evaluated under the standard comprehensive
testing procedure, in conjunction with HP Indigo R&D substrate certification criteria.

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Certified for **HP Indigo**







Comment Detail:

Commercial Substrate Evaluation Report

Certified for **HP Indigo**

Supplier Information						
Supplier Name	Arctic Paper	Munkedals AB				
Supplier Address		Munkedal, SE-45	 581			
Supplier Country	Sweden	,				
Product Information						
Product Information Product Name	Munken Kris	otall ID				
		Stall ID				
Product Category	Paper		TI: 1 / : /	I· \	113 um	
Grammage (gsm) / Basis weig	ght (#) 100 gsm		Thickness (microns/c	caliper)	113 um	
Certification Number	RI5500-17-5	121	Certification Center		RIT	
Date of Evaluation	05/23/2017		Evaluated on		Interpolation	
Certified for	5500, 5600 r	multi-shot, 7000, 7	500, 7600, 7800,	7900,	10000 & 12000	
Evaluation Process	Interpolation					
Evaluation	Measuremei	nt	Result	Gr	ade (stars)	Comments
Runability						
Simplex	Number of Jan	ns		**	*	
Duplex	Number of Jan	ıs				
Ink Adhesion / Fixing				**	*	
Peeling	100%K in 4 color % in remaining					
Flaking	<1mm, % Cover	age				
Photo Peeling	290K in 4 color m % in remaining					
Photo Flaking	<1mm, % Cover	age				
Photo Recommended	>80% after 10 or 6	60 min				
White Ink Recommended	>80% after 10 or 6	60 min				
Blanket Compatibility						
Cleaner Pages	1 st clean page afte impressions	r 12K		**	*	
Evaluation Result		Pass				

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.

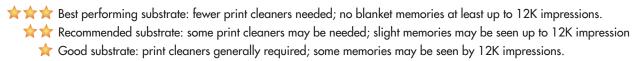
Blanket Compatibility:

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 Guille	otine, 5min ● Coated	All results are > 250% At least 1 result is > 250%		At least 1 result is > 200%	Results < 200%
Flaking Guilla	tine, 5min • Uncoated	Result is > 300% Result is > 250%		Result is > 200%	Results < 200%
Photo	Peeling 290% Black	Result is > 80% o	ıfter 10 or 60 minutes	N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1 mm
Blanket	Cleaner Sheets	1ª Red is clean	3 rd 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









Substrate Name Munken Kristall ID

Thickness / Weight 136 um 120 gsm

Certification Date Interpolation

Certification Number RI5500-17-5122

This substrate is hereby certified for HP Indigo digital press(es) 5500, 5600 multi-shot, 7000, 7500, 7600, 7800, 7900, 10000 & 12000

For star ratings, please refer to the HP Indigo Media Solutions Locator

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testing procedure, in conjunction with HP Indigo R&D substrate certification criteria.

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Certified for **HP Indigo**







Certified for **HP Indigo**

Supplier Information							
Supplier Name		Arctic Paper Munkeda	als AB				
Supplier Address		Bruksvägen, Munkeda	al, SE-45	581			
Supplier Country		Sweden					
Product Information							
Product Name	Product Name Munken Kristall ID						
Product Category		Paper					
Grammage (gsm) / Basis wei	ight (#)	120 gsm		Thickness (microns/	'caliper)	136 um	
Certification Number		RI5500-17-5122		Certification Center		RIT	
Date of Evaluation		05/23/2017		Evaluated on		Interpolation	
Certified for		5500, 5600 multi-shot	, 7000, 7	500, 7600, 7800	, 7900,	10000 & 12000	
Evaluation Process		Interpolation					
Evaluation		Measurement		Result	Gr	ade (stars)	Comments
Runability							
Simplex		Number of Jams			**	*	
Duplex		Number of Jams					
Ink Adhesion / Fixing					**	*	
Peeling	1	00%K in 4 color mode, % in remaining					
Flaking		<1mm, % Coverage					
Photo Peeling	2	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	1	st clean page after 12K impressions			***		
Evaluation Result			Pass				
Comment Detail:							

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.

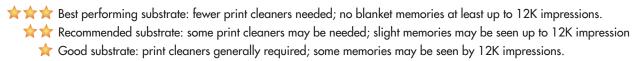
Blanket Compatibility:

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 Guille	otine, 5min ● Coated	All results are > 250% At least 1 result is > 250%		At least 1 result is > 200%	Results < 200%
Flaking Guilla	tine, 5min • Uncoated	Result is > 300% Result is > 250%		Result is > 200%	Results < 200%
Photo	Peeling 290% Black	Result is > 80% o	ıfter 10 or 60 minutes	N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1 mm
Blanket	Cleaner Sheets	1ª Red is clean	3 rd 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









Substrate Name Munken Kristall ID

Thickness / Weight 170 um 150 gsm

Certification Date Interpolation

Certification Number RI5500-17-5123

This substrate is hereby certified for HP Indigo digital press(es) 5500, 5600 multi-shot, 7000, 7500, 7600, 7800, 7900, 10000 & 12000

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Certified for **HP Indigo**







Certified for **HP Indigo**

Supplier Information							
Supplier Name		Arctic Paper Munkeda	als AB				
Supplier Address		Bruksvägen, Munkeda	al, SE-45	581			
Supplier Country		Sweden					
Product Information							
Product Name	Product Name Munken Kristall ID						
Product Category		Paper					
Grammage (gsm) / Basis wei	ight (#)	150 gsm		Thickness (microns/	/caliper)	170 um	
Certification Number		RI5500-17-5123		Certification Center		RIT	
Date of Evaluation		05/23/2017		Evaluated on		Interpolation	
Certified for		5500, 5600 multi-shot	, 7000, 7	500, 7600, 7800	, 7900,	10000 & 12000	
Evaluation Process		Interpolation					
Evaluation		Measurement		Result	Gr	ade (stars)	Comments
Runability							
Simplex		Number of Jams			**	*	
Duplex		Number of Jams				` ` `	
Ink Adhesion / Fixing					**	*	
Peeling	1	00%K in 4 color mode, % in remaining					
Flaking		<1mm, % Coverage					
Photo Peeling	2	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	A	
Cleaner Pages	1	st clean page after 12K impressions			***		
Evaluation Result			Pass				
Comment Detail:							

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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.

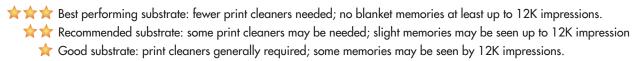
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Photo and White Ink Applications:

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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 Guille	otine, 5min ● Coated	All results are > 250% At least 1 result is > 250%		At least 1 result is > 200%	Results < 200%
Flaking Guilla	tine, 5min • Uncoated	Result is > 300% Result is > 250%		Result is > 200%	Results < 200%
Photo	Peeling 290% Black	Result is > 80% o	ıfter 10 or 60 minutes	N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1 mm
Blanket	Cleaner Sheets	1ª Red is clean	3 rd 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









Substrate Name Munken Kristall ID

Thickness / Weight 192 um 170 gsm

Certification Date Interpolation

Certification Number RI5500-17-5124

This substrate is hereby certified for HP Indigo digital press(es) 5500, 5600 multi-shot, 7000, 7500, 7600, 7800, 7900, 10000 & 12000

For star ratings, please refer to the HP Indigo Media Solutions Locator
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Certified for **HP Indigo**







Certified for **HP Indigo**

Supplier Information						
Supplier Name	Arctic Paper Munked	lals AB				
Supplier Address	Bruksvägen, Munked	lal, SE-45	581			
Supplier Country	Sweden					
Product Information						
Product Name	Munken Kristall ID					
Product Category	Paper					
Grammage (gsm) / Basis weigh	nt (#) 170 gsm		Thickness (microns/	'caliper)	192 um	
Certification Number	RI5500-17-5124		Certification Center		RIT	
Date of Evaluation	05/23/2017		Evaluated on		Interpolation	
Certified for	5500, 5600 multi-sho	t, 7000, 7	500, 7600, 7800	, 7900,	10000 & 12000	
Evaluation Process	Interpolation					
Evaluation	Measurement		Result	Gı	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	A	
Cleaner Pages	1st clean page after 12K impressions			**	*	
Evaluation Result		Pass				

Comment Detail:

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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.

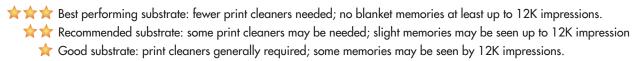
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Star Rating



		***		*	
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 Guille	otine, 5min ● Coated	All results are > 250% At least 1 result is > 250%		At least 1 result is > 200%	Results < 200%
Flaking Guilla	tine, 5min • Uncoated	Result is > 300% Result is > 250%		Result is > 200%	Results < 200%
Photo	Peeling 290% Black	Result is > 80% o	ıfter 10 or 60 minutes	N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1 mm
Blanket	Cleaner Sheets	1ª Red is clean	3 rd 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









Substrate Name Munken Kristall ID

Thickness / Weight 226 um 200 gsm

Certification Date Interpolation

Certification Number RI5500-17-5125

This substrate is hereby certified for HP Indigo digital press(es) 5500, 5600 multi-shot, 7000, 7500, 7600, 7800, 7900, 10000 & 12000

For star ratings, please refer to the HP Indigo Media Solutions Locator
This substrate has been evaluated under the standard comprehensive
testing procedure, in conjunction with HP Indigo R&D substrate certification criteria.

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Certified for **HP Indigo**







Certified for **HP Indigo**

Supplier Information						
Supplier Name	Arctic Paper	Munkedals AB				
Supplier Address	Bruksvägen	, Munkedal, SE-45	581			
Supplier Country	Sweden					
Product Information						
Product Name	Munken Kris	stall ID				
Product Category	Paper					
Grammage (gsm) / Basis weig	ht (#) 200 gsm		Thickness (microns/	caliper)	226 um	
Certification Number	RI5500-17-5	125	Certification Center		RIT	
Date of Evaluation	05/23/2017		Evaluated on		Interpolation	
Certified for	5500, 5600 ı	multi-shot, 7000, 7	500, 7600, 7800,	7900,	10000 & 12000	
Evaluation Process	Interpolation	1				
Evaluation	Measureme	nt	Result	Gr	rade (stars)	Comments
Runability						
Simplex	Number of Jar	ns		**	*	
Duplex	Number of Jar	ns				
Ink Adhesion / Fixing				**	*	
Peeling	100%K in 4 color % in remainin					
Flaking	<1mm, % Cover	age				
Photo Peeling	290K in 4 color n % in remainin					
Photo Flaking	<1mm, % Cover	age				
Photo Recommended	>80% after 10 or 6	60 min				
White Ink Recommended	>80% after 10 or 6	60 min				
Blanket Compatibility				A A	A	
Cleaner Pages	1st clean page afte impressions			**	*	
Evaluation Result		Pass				

Comment Detail:

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.

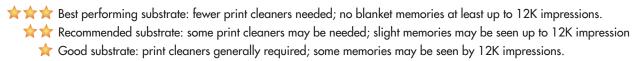
Blanket Compatibility:

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 Guille	otine, 5min ● Coated	All results are > 250% At least 1 result is > 250%		At least 1 result is > 200%	Results < 200%
Flaking Guilla	tine, 5min • Uncoated	Result is > 300% Result is > 250%		Result is > 200%	Results < 200%
Photo	Peeling 290% Black	Result is > 80% o	ıfter 10 or 60 minutes	N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1 mm
Blanket	Cleaner Sheets	1ª Red is clean	3 rd 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









Substrate Name Munken Kristall ID

Thickness / Weight 271 um/240 in 240 gsm

Certification Date Interpolation

Certification Number RI5500-17-5126

This substrate is hereby certified for HP Indigo digital press(es) 5500, 5600 multi-shot, 7000, 7500, 7600, 7800, 7900, 10000 & 12000

For star ratings, please refer to the HP Indigo Media Solutions Locator
This substrate has been evaluated under the standard comprehensive
testing procedure, in conjunction with HP Indigo R&D substrate certification criteria.

Please note: By certifying your product this means you support its use on HP Indigo equipment and its uses, and that you will perform any due diligence necessary should complaints arise. Further, by receiving approval, you agree that if there are any manufacturing or product changes that may impact substrate performance you will have the product re-tested/re-certified, to eliminate the risk of issues in the field as a result. Certification is valid for 2 years, at which time if there are no changes to paper properties or production processes, the certification can be extended for another two years. After 4 years from the original certification date, a new certification is required.

Certified for **HP Indigo**







Certified for **HP Indigo**

Supplier Information						
Supplier Name	Arctic Paper Munke	Arctic Paper Munkedals AB				
Supplier Address	Bruksvägen, Munke	Bruksvägen, Munkedal, SE-45581				
Supplier Country	Sweden					
Product Information						
Product Name	Munken Kristall ID					
Product Category	Paper					
Grammage (gsm) / Basis weigl	ht (#) 240 gsm		Thickness (microns/	caliper)	271 um/240 in	
Certification Number	RI5500-17-5126		Certification Center		RIT	
Date of Evaluation	05/23/2017		Evaluated on		Interpolation	
Certified for	5500, 5600 multi-sh	ot, 7000, 7	500, 7600, 7800,	7900,	10000 & 12000	
Evaluation Process	Interpolation					
Evaluation	Measurement		Result	Gı	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:

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.

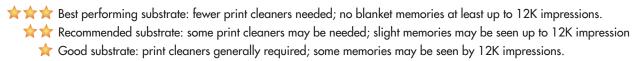
Blanket Compatibility:

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 No more than 1 jam or minor japer 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 Guille	Flaking Guillotine, 5min ● Coated		At least 1 result is > 250%	At least 1 result is > 200%	Results < 200%
Flaking Guilla	Flaking Guillotine, 5min ● Uncoated		Result is > 300% Result is > 250%		Results < 200%
Photo Peeling 290% Black		Result is > 80% o	ıfter 10 or 60 minutes	N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1 mm
Blanket	Cleaner Sheets	1ª Red is clean	3 rd 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









Substrate Name Munken Kristall ID

Thickness / Weight 339 um 300 gsm

Certification Date Interpolation

Certification Number RI5500-17-5127

This substrate is hereby certified for HP Indigo digital press(es) 5500, 5600 multi-shot, 7000, 7500, 7600, 7800, 7900, 10000 & 12000

For star ratings, please refer to the HP Indigo Media Solutions Locator

This substrate has been evaluated under the standard comprehensive
testing procedure, in conjunction with HP Indigo R&D substrate certification criteria.

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Certified for **HP Indigo**







Comment Detail:

Commercial Substrate Evaluation Report

Certified for **HP Indigo**

Supplier Information								
Supplier Name	Arctic Pa	Arctic Paper Munkedals AB						
Supplier Address		Bruksvägen, Munkedal, SE-45581						
Supplier Country	Sweden							
Product Information								
Product Information Product Name	Munkon	Krietell ID						
		Munken Kristall ID						
Product Category	Paper			TI: 1 / :	/ I· \	220		
Grammage (gsm) / Basis weig	ght (#) 300 gsm			Thickness (microns	/caliper)	339 um		
Certification Number	RI5500-1	7-5127		Certification Center	r	RIT		
Date of Evaluation	05/23/20	17		Evaluated on		Interpolation		
Certified for	5500, 56	00 multi-shot,	7000, 75	500, 7600, 7800	7900,	10000 & 12000		
Evaluation Process	Interpola	tion						
Evaluation	Measure	ement		Result	Gı	rade (stars)	Comments	
Runability								
Simplex	Number o	of Jams			***			
Duplex	Number o	of Jams						
Ink Adhesion / Fixing					**	*		
Peeling	100%K in 4 c % in remo							
Flaking	<1mm, % C	overage						
Photo Peeling	290K in 4 co % in remo							
Photo Flaking	<1mm, % C	overage						
Photo Recommended	>80% after 10	or 60 min						
White Ink Recommended	>80% after 10	or 60 min						
Blanket Compatibility								
Cleaner Pages	1 st clean page impress				**	*		
Evaluation Result			Pass					

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.

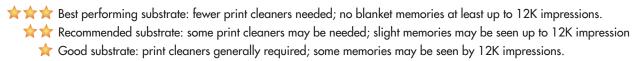
Blanket Compatibility:

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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 No more than 1 jam or minor japer 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 Guille	Flaking Guillotine, 5min ● Coated		At least 1 result is > 250%	At least 1 result is > 200%	Results < 200%
Flaking Guilla	Flaking Guillotine, 5min ● Uncoated		Result is > 300% Result is > 250%		Results < 200%
Photo Peeling 290% Black		Result is > 80% o	ıfter 10 or 60 minutes	N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1 mm
Blanket	Cleaner Sheets	1ª Red is clean	3 rd 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









Substrate Name Munken Kristall ID

Thickness / Weight 452 um/400 in 400 gsm

Certification Date Interpolation

Certification Number RI5500-17-5128

This substrate is hereby certified for HP Indigo digital press(es) 5500, 5600 multi-shot, 7000, 7500, 7600, 7800, 7900, 10000 & 12000

For star ratings, please refer to the HP Indigo Media Solutions Locator

This substrate has been evaluated under the standard comprehensive
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Certified for **HP Indigo**







Certified for **HP Indigo**

Supplier Information							
Supplier Name	Arctic Paper Munked	Arctic Paper Munkedals AB					
Supplier Address	Bruksvägen, Munked	Bruksvägen, Munkedal, SE-45581					
Supplier Country	Sweden						
Product Information							
Product Name	Munken Kristall ID	Munken Kristall ID					
Product Category	Paper						
Grammage (gsm) / Basis weigh	nt (#) 400 gsm		Thickness (microns/	'caliper)	452 um/400 in		
Certification Number	RI5500-17-5128	RI5500-17-5128			RIT		
Date of Evaluation	05/23/2017		Evaluated on		Interpolation		
Certified for	5500, 5600 multi-sho	t, 7000, 7	500, 7600, 7800,	, 7900,	10000 & 12000		
Evaluation Process	Interpolation						
Evaluation	Measurement		Result	Gı	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	A		
Cleaner Pages	1st clean page after 12K impressions			**	*		
Evaluation Result		Pass					

Comment Detail:

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Runnability:

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

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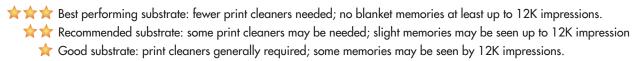
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Star Rating



		☆☆ ☆ ☆☆		*	
Evaluation	Measurement	Best-performing	Recommended	Good	Failure
Transport	Runnability	No jams with the tested No more than 1 jam or minor japer 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 Guille	Flaking Guillotine, 5min ● Coated		At least 1 result is > 250%	At least 1 result is > 200%	Results < 200%
Flaking Guilla	Flaking Guillotine, 5min ● Uncoated		Result is > 300% Result is > 250%		Results < 200%
Photo Peeling 290% Black		Result is > 80% o	ıfter 10 or 60 minutes	N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1 mm
Blanket	Cleaner Sheets	1ª Red is clean	3 rd 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



