



Substrate Name Munken Polar ID

Thickness / Weight 104 um 80 gsm

Certification Date 12/13/2016

Certification Number RI5500-16-4885

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

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** 







1st clean page after 12K impressions Certified for **HP Indigo** 

Supplier Information							
Supplier Name		Arctic Paper Munkedals AB					
Supplier Address		Bruksvägen, Munkedal, SE-45581					
Supplier Country		Sweden					
Product Information							
Product Name		Munken Polar ID					
Product Category		Paper					
Grammage (gsm) / Basis weig	ght (#)	80 gsm		Thickness (microns	/caliper)	104 um	
Certification Number		RI5500-16-4885		Certification Cente	r	RIT	
Date of Evaluation		12/13/2016		Evaluated on		HP 5500	
Certified for		5500, 5600 multi-shot	, 7000, 7	500, 7600, 7800	) & 100C	0	
Evaluation Process		Full					
Evaluation		Measurement		Result	Gı	ade (stars)	Comments
Runability							
Simplex		Number of Jams	0		**	*	
Duplex		Number of Jams	0				
Ink Adhesion / Fixing					**	*	
Peeling	10	00%K in 4 color mode, % in remaining	100%				
Flaking		<1mm, % Coverage	400%		-		
Photo Peeling	2	290K in 4 color mode, % in remaining	100%				
Photo Flaking		<1mm, % Coverage	400%				
Photo Recommended	>8	30% after 10 or 60 min	Yes				
White Ink Recommended	>8	30% after 10 or 60 min	N/A				
Blanket Compatibility							

Pass

\*\*\*

**Comment Detail:** 

Cleaner Pages

**Evaluation Result** 

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.

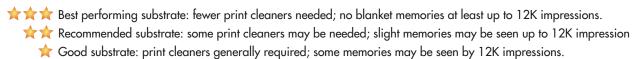
#### **Blanket Compatibility:**

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	Best-performing Recommended		Failure
Transport	Runnability	No jams with the tested paper	and the second of the second o		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% after 10 or 60 minutes		N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1mm
Blanket	Cleaner Sheets	1ª Red is clean	3™ Red is clean	5 <sup>th</sup> Red is clean	5 <sup>th</sup> 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 Polar ID

Thickness / Weight 117 um 90 gsm

Certification Date Interpolation

Certification Number RI5500-16-4886

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

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 Munkeda	Arctic Paper Munkedals AB					
Supplier Address	Bruksvägen, Munkeda	Bruksvägen, Munkedal, SE-45581					
Supplier Country	Sweden	Sweden					
Product Information							
Product Name	Munken Polar ID						
Product Category	Paper						
Grammage (gsm) / Basis weigh	t (#) 90 gsm		Thickness (microns/	'caliper)	117 um		
Certification Number	RI5500-16-4886		Certification Center		RIT		
Date of Evaluation	12/14/2016		Evaluated on		Interpolation		
Certified for	5500, 5600 multi-shot	, 7000, 7	500, 7600, 7800	& 1000	00		
Evaluation Process	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:

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.

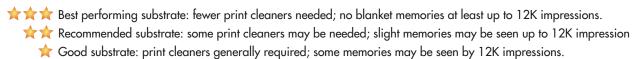
#### **Blanket Compatibility:**

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	Best-performing Recommended		Failure
Transport	Runnability	No jams with the tested paper	and the second of the second o		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% after 10 or 60 minutes		N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1mm
Blanket	Cleaner Sheets	1ª Red is clean	3™ Red is clean	5 <sup>th</sup> Red is clean	5 <sup>th</sup> 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 Polar ID

Thickness / Weight 113 um 100 gsm

Certification Date Interpolation

Certification Number RI5500-16-4887

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

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	als AB				
Supplier Address	Bruksvägen, Munked	Bruksvägen, Munkedal, SE-45581				
Supplier Country	Sweden	Sweden				
Product Information						
Product Name	Munken Polar ID					
Product Category	Paper					
Grammage (gsm) / Basis weigh	ıt (#) 100 gsm		Thickness (microns/	caliper)	113 um	
Certification Number	RI5500-16-4887		Certification Center		RIT	
Date of Evaluation	12/14/2016		Evaluated on		Interpolation	
Certified for	5500, 5600 multi-sho	t, 7000, 7	500, 7600, 7800	& 1000	00	
Evaluation Process	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:

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.

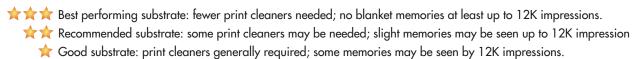
#### **Blanket Compatibility:**

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	Best-performing Recommended		Failure
Transport	Runnability	No jams with the tested paper	and the second of the second o		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% after 10 or 60 minutes		N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1mm
Blanket	Cleaner Sheets	1ª Red is clean	3™ Red is clean	5 <sup>th</sup> Red is clean	5 <sup>th</sup> 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 Polar ID

Thickness / Weight 136 um 120 gsm

Certification Date Interpolation

Certification Number RI5500-16-4888

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

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Certified for **HP Indigo** 







Certified for HP Indigo

Supplier Information						
Supplier Name	Arctic Paper Munkeda	als AB				
Supplier Address	Bruksvägen, Munked	Bruksvägen, Munkedal, SE-45581				
Supplier Country	Sweden	Sweden				
Product Information						
Product Name	Munken Polar ID					
Product Category	Paper					
Grammage (gsm) / Basis weigh	t (#) 120 gsm		Thickness (microns/	caliper)	136 um	
Certification Number	RI5500-16-4888		Certification Center		RIT	
Date of Evaluation	12/14/2016		Evaluated on		Interpolation	
Certified for	5500, 5600 multi-shot	t, 7000, 7	500, 7600, 7800	& 1000	0	
Evaluation Process	Interpolation					
Evaluation	Measurement		Result	Gr	ade (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.

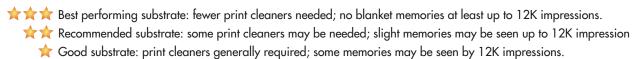
#### **Blanket Compatibility:**

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	Best-performing Recommended		Failure
Transport	Runnability	No jams with the tested paper	and the second of the second o		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% after 10 or 60 minutes		N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1mm
Blanket	Cleaner Sheets	1ª Red is clean	3™ Red is clean	5 <sup>th</sup> Red is clean	5 <sup>th</sup> 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 Polar ID

Thickness / Weight 147 um 130 gsm

Certification Date Interpolation

Certification Number RI5500-16-4889

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Certified for **HP Indigo** 







Certified for HP Indigo

Supplier Information							
Supplier Name	Arctic Paper Munkedals AB						
Supplier Address	Bruksvägen, Munkeda	Bruksvägen, Munkedal, SE-45581					
Supplier Country	Sweden	Sweden					
Product Information							
Product Name	Munken Polar ID						
Product Category	Paper						
Grammage (gsm) / Basis weight	t (#) 130 gsm		Thickness (microns/	/caliper)	147 um		
Certification Number	RI5500-16-4889		Certification Center		RIT		
Date of Evaluation	12/14/2016		Evaluated on		Interpolation		
Certified for	5500, 5600 multi-shot	, 7000, 7	500, 7600, 7800	& 1000	0		
Evaluation Process	Interpolation	Interpolation					
Evaluation	Measurement		Result	Gr	ade (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.

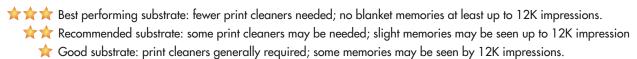
#### **Blanket Compatibility:**

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	Best-performing Recommended		Failure
Transport	Runnability	No jams with the tested paper	and the second of the second o		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% after 10 or 60 minutes		N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1mm
Blanket	Cleaner Sheets	1ª Red is clean	3™ Red is clean	5 <sup>th</sup> Red is clean	5 <sup>th</sup> 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





## Certified for **HP Indigo**



# **Commercial Substrate Evaluation Report**

For HP Indigo 10000 / 7000 ser / 5000 ser / multi-shot

Supplier Contact Information					
Supplier Name	Arctic Paper Munkedals AB				
Supplier Address	Bruksvägen, Munkedal SE-45581				
Supplier Country	Sweden				
Product Name	Munken Polar ID				
Product Category	Uncoated				
Grammage (gsm)/Basis weight (#)	150 gsm				
Microns/Caliper	170 microns				
Certification Number	SG7600-16-053				
Certification Center	Singapore				
Date of Evaluation	7 Sep 2016				
Evaluated on	HP Indigo 7600 multi-shot				
Certified for	HP Indigo 10000 / 7000 ser / 5000 ser / multi-shot				
Evaluation Process	Full				

Evaluation	Measure	Result	Grade (stars)	Comments
Runability			***	
Simplex	Number of Jams	0		
Duplex	Number of Jams	0		
Fixing			***	
Peeling	100%K in 4 color mode, % ink remaining	100%	W. Carlot	
Flaking	<1 mm, % Coverage	400%		
Photo Peeling	290%K in 4 color mode, % ink remaining	100%		
Photo Flaking	<1 mm, % Coverage	400%	TO THE REAL PROPERTY.	
Photo Recommended		Yes		
White Ink Recommended				
Blanket Compatibility			***	
Evaluation Result		Pass		

Comment Detail:		

### The substrate certification procedure incorporates several processes. This checks for:

#### Runability:

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

#### Fixing:

Ink-substrate interaction as determined by:

- The degree of ink adhesion to the substrate for standard and photo-related applications 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.

#### 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

- 🛊 🛊 🛊 Best performing substrate: no blanket memories or very minor memories.
- 🖈 🖈 Recommended substrate: some print cleaners may be needed; slight memories may be seen up to 12K impression
- ★ Good substrate: print cleaners generally required; some memories may be seen by 12K impressions.

		***	**	*	
	Measurement	Best-performing substrate	Recommended substrate	Good substrate	
Transport	Runability	No jam and minor issues	1 jam and minor issues	1 jam and minor issues	
	Peeling: 100% K,	>90%	>80%	>80% at one hour	
Fixing	Flaking guillotine, 5 minutes	< 1 mm at 250% K for coated paper, < 1 mm at 300% K for uncoated paper	<1 mm at 250% K	<1 mm at 200% K	
	Photo peeling: 290% K, 10 or 60 minutes	>80% after 10 or	r 60 min	N/A	
	Photo Flaking: guillotine, 5 minutes	<1mm at 350	0% K	N/A	
Blanket Compatibility	Cleaner sheets clean after 12 K	1st cleaner sheet is clean	3rd cleaner sheet is clean	5th cleaner sheet is clean	

#### **Certification Validity**







Substrate Name Munken Polar ID

Thickness / Weight 192 um 170 gsm

Certification Date Interpolation

Certification Number RI5500-16-4890

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

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	Δ	Arctic Paper Munkedals AB						
Supplier Address		Bruksvägen, Munkeda		 581				
Supplier Country		Sweden						
Product Information								
Product Information  Product Name	_	Munken Polar ID						
Product Category		Paper		TI: 1 / :	/ I: \	400		
Grammage (gsm) / Basis wei	ght (#)	70 gsm		Thickness (microns,	(caliper)	192 um		
Certification Number	R	15500-16-4890		Certification Center	•	RIT		
Date of Evaluation	1	2/14/2016		Evaluated on		Interpolation		
Certified for	5	500, 5600 multi-shot,	7000, 7	500, 7600, 7800	& 1000	00		
Evaluation Process	lr	nterpolation						
Evaluation		Measurement		Result	Gr	ade (stars)	Comments	
Runability								
Simplex		Number of Jams			**	*		
Duplex		Number of Jams						
Ink Adhesion / Fixing					**	*		
Peeling		%K in 4 color mode, % in remaining						
Flaking	<1	1 mm, % Coverage						
Photo Peeling		OK in 4 color mode, % in remaining						
Photo Flaking	< 1	1 mm, % Coverage						
Photo Recommended	>809	% after 10 or 60 min						
White Ink Recommended	>809	% after 10 or 60 min						
Blanket Compatibility								
Cleaner Pages	1 st c	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.

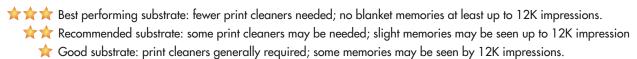
#### **Blanket Compatibility:**

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	in the second of		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% after 10 or 60 minutes		N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1mm
Blanket	Cleaner Sheets	1ª Red is clean	3™ Red is clean	5 <sup>th</sup> Red is clean	5 <sup>th</sup> 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 Polar ID

Thickness / Weight 226 um 200 gsm

Certification Date Interpolation

Certification Number RI5500-16-4891

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

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 Par	Arctic Paper Munkedals AB						
Supplier Address		en, Munkedal,		 581				
Supplier Country	Sweden	<del>-</del>						
Product Information								
Product Information Product Name	Munken F	olor ID						
		olar ID						
Product Category	Paper			TI: 1 / :	/ I: \	220		
Grammage (gsm) / Basis weig	ght (#) 200 gsm			Thickness (microns	/caliper)	226 um		
Certification Number	RI5500-16	-4891		Certification Center	r	RIT		
Date of Evaluation	12/14/201	6		Evaluated on		Interpolation		
Certified for	5500, 560	0 multi-shot, 70	000, 75	500, 7600, 7800	& 1000	00		
Evaluation Process	Interpolati	on						
Evaluation	Measurer	nent		Result	Gr	ade (stars)	Comments	
Runability								
Simplex	Number of	Jams			**	*		
Duplex	Number of	Jams						
Ink Adhesion / Fixing					**	*		
Peeling	100%K in 4 col % in remai							
Flaking	<1mm, % Co	verage						
Photo Peeling	290K in 4 colo % in remai							
Photo Flaking	<1mm, % Co	verage						
Photo Recommended	>80% after 10	or 60 min						
White Ink Recommended	>80% after 10	or 60 min						
Blanket Compatibility								
Cleaner Pages	1st clean page impressic				**	*		
Evaluation Result		F	ass					

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.

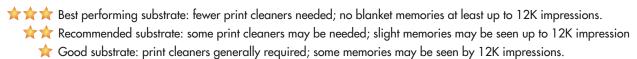
#### **Blanket Compatibility:**

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	in the second of		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% after 10 or 60 minutes		N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1mm
Blanket	Cleaner Sheets	1ª Red is clean	3™ Red is clean	5 <sup>th</sup> Red is clean	5 <sup>th</sup> 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 Polar ID

Thickness / Weight 271 um 240 gsm

Certification Date Interpolation

Certification Number RI5500-16-4892

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

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 Munked	dals AB				
Supplier Address	Bruksvägen, Munke	dal, SE-45	581			
Supplier Country	Sweden					
Product Information						
Product Name	Munken Polar ID					
Product Category	Paper					
Grammage (gsm) / Basis weigh	nt (#) 240 gsm		Thickness (microns/	caliper)	271 um	
Certification Number	RI5500-16-4892		Certification Center		RIT	
Date of Evaluation	12/14/2016		Evaluated on		Interpolation	
Certified for	5500, 5600 multi-sho	ot, 7000, 7	500, 7600, 7800	& 1000	00	
Evaluation Process	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:

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.

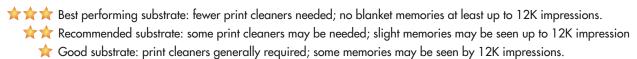
#### **Blanket Compatibility:**

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	in the second of		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% after 10 or 60 minutes		N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1mm
Blanket	Cleaner Sheets	1ª Red is clean	3™ Red is clean	5 <sup>th</sup> Red is clean	5 <sup>th</sup> 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 Polar ID

Thickness / Weight 339 um 300 gsm

Certification Date Interpolation

Certification Number RI5500-16-4893

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

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 Munked	lals AB				
Supplier Address	Bruksvägen, Munked	dal, SE-45	581			
Supplier Country	Sweden					
Product Information						
Product Name	Munken Polar ID					
Product Category	Paper					
Grammage (gsm) / Basis weigh	nt (#) 300 gsm		Thickness (microns/	'caliper)	339 um	
Certification Number	RI5500-16-4893		Certification Center		RIT	
Date of Evaluation	12/14/2016		Evaluated on		Interpolation	
Certified for	5500, 5600 multi-sho	ot, 7000, 7	500, 7600, 7800	& 1000	00	
Evaluation Process	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:

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.

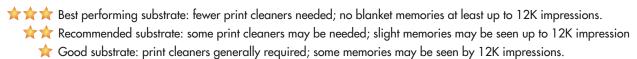
#### **Blanket Compatibility:**

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	in the second of		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% after 10 or 60 minutes		N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1mm
Blanket	Cleaner Sheets	1ª Red is clean	3™ Red is clean	5 <sup>th</sup> Red is clean	5 <sup>th</sup> 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 Polar ID

Thickness / Weight 452 um 400 gsm

Certification Date 12/14/2016

Certification Number RI5500-16-4894

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

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 Munkedals AB						
Supplier Address		Bruksvägen, Munkedal, SE-45581						
Supplier Country		Sweden						
Product Information								
Product Name		Munken Polar ID						
Product Category		Paper						
Grammage (gsm) / Basis wei	ight (#)	400 gsm		Thickness (microns,	/caliper)	452 um		
Certification Number		RI5500-16-4894		Certification Center	r	RIT		
Date of Evaluation		12/14/2016		Evaluated on		HP 5500		
Certified for		5500, 5600 multi-shot,	7000, 7	500, 7600, 7800	& 100C	00		
Evaluation Process		Full						
Evaluation		Measurement		Result	Gı	rade (stars)	Comments	
Runability								
Simplex		Number of Jams	0		**	*		
Duplex		Number of Jams	0					
Ink Adhesion / Fixing					**	*		
Peeling	10	00%K in 4 color mode, % in remaining	100%					
Flaking		<1mm, % Coverage	400%					
Photo Peeling	2	290K in 4 color mode, % in remaining	100%					
Photo Flaking		<1mm, % Coverage	400%					
Photo Recommended	>8	30% after 10 or 60 min	Yes					
White Ink Recommended	>8	30% after 10 or 60 min	N/A					
Blanket Compatibility								
Cleaner Pages	1 s	st clean page after 12K impressions	1		**	*		

Pass

**Comment Detail:** 

**Evaluation Result** 

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.

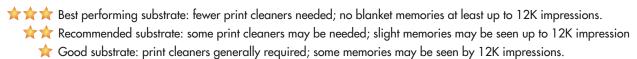
#### **Blanket Compatibility:**

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	in the second of		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% after 10 or 60 minutes		N/A	Results < 80%
FIIOIO	Flaking Guillotine, 5min	<1mm	at 350% K	N/A	Results > 1mm
Blanket	Cleaner Sheets	1ª Red is clean	3™ Red is clean	5 <sup>th</sup> Red is clean	5 <sup>th</sup> 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



