

Commercial Certificate for S3 & S4 Evaluation Report



For HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot



Supplier Contact Information

Supplier Name	Arctic Paper Munkedals AB
Supplier Address	Bruksvägen, Munkedal SE-45581
Supplier Country	Sweden
Product Name	Munken Kristall ID
Product Category	Uncoated
Grammage (gsm)/Basis weight (#)	90 gsm
Microns/Caliper	117 microns
Certification Number	SG7600-22-118
Certification Center	HP Singapore
Date of Evaluation	6 Jul 2022
Evaluated on	HP Indigo 7600 multi-shot
Certified for	HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot
Evaluation Process	Interpolation

Evaluation	Measure	Result	Grade (stars)	Comments
Runability			***	
Simplex	Number of Jams			
Duplex	Number of Jams			
Fixing			***	
Peeling	100% K in 4 color mode, % ink remaining			
Photo Peeling	290% K in 4 color mode, % ink remaining			
Photo Recommended		Yes		
White Ink Recommended				
Blanket Compatibility			***	
Evaluation Result		PASS		

Comment Detail: Re-certification of RI5500-17-5120

Above results by interpolation.

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.

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) Ink-transferability after a self-cleaning procedure "cleaner pages" (intended to clean the blanket's release layer and restore transfer performance) has been performed.

Approval for Photo and White Ink Applications:

Applications that use white ink and or light cyan/light magenta inks or photo related applications are strongly recommended to use robust media products 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: excellent runnability / high ink adhesion / excellent blanket performance with no or very little issues, should generally work well for high coverage and photo applications.
- ☆☆ Recommended substrate: good runnability / good ink adhesion / print cleaners are generally required at a nominal frequency.
- ☆ Good substrate: acceptable runnability / acceptable ink adhesion / print cleaners are generally required more frequently.

		☆☆☆	☆☆	☆
	Measurement	Best-performing substrate	Recommended substrate	Good substrate
Transport	Runnability	No jam and minor issues	1 jam or minor issues	1 jam and minor issues
	Peeling: 100% K	>90%	>80%	>80% at one hour
	Photo peeling: 290% K, 10 or 60 minutes	>80% after 10 or 60 min	N/A	N/A
Blanket Compatibility	Performance evaluated when utilizing a mature blanket Blanket performance	No transfer defects and no Picking above the limit is allowed	Cleaner pages were able to remove all Transfer defect and reduce the picking to below the limit	After cleaning small transfer defects and picking are still visible

Certification Validity

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



Commercial Certificate for S3 & S4 Evaluation Report



For HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot



Supplier Contact Information

Supplier Name	Arctic Paper Munkedals AB
Supplier Address	Bruksvägen, Munkedal SE-45581
Supplier Country	Sweden
Product Name	Munken Kristall ID
Product Category	Uncoated
Grammage (gsm)/Basis weight (#)	100 gsm
Microns/Caliper	113 microns
Certification Number	SG7600-22-119
Certification Center	HP Singapore
Date of Evaluation	6 Jul 2022
Evaluated on	HP Indigo 7600 multi-shot
Certified for	HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot
Evaluation Process	Interpolation

Evaluation	Measure	Result	Grade (stars)	Comments
Runability			***	
Simplex	Number of Jams			
Duplex	Number of Jams			
Fixing			***	
Peeling	100% K in 4 color mode, % ink remaining			
Photo Peeling	290% K in 4 color mode, % ink remaining			
Photo Recommended		Yes		
White Ink Recommended				
Blanket Compatibility			***	
Evaluation Result		PASS		

Comment Detail: Re-certification of RI5500-17-5121

Above results by interpolation.

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.

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) Ink-transferability after a self-cleaning procedure "cleaner pages" (intended to clean the blanket's release layer and restore transfer performance) has been performed.

Approval for Photo and White Ink Applications:

Applications that use white ink and or light cyan/light magenta inks or photo related applications are strongly recommended to use robust media products 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: excellent runnability / high ink adhesion / excellent blanket performance with no or very little issues, should generally work well for high coverage and photo applications.
- ☆☆ Recommended substrate: good runnability / good ink adhesion / print cleaners are generally required at a nominal frequency.
- ☆ Good substrate: acceptable runnability / acceptable ink adhesion / print cleaners are generally required more frequently.

		☆☆☆	☆☆	☆
	Measurement	Best-performing substrate	Recommended substrate	Good substrate
Transport	Runnability	No jam and minor issues	1 jam or minor issues	1 jam and minor issues
	Peeling: 100% K	>90%	>80%	>80% at one hour
	Photo peeling: 290% K, 10 or 60 minutes	>80% after 10 or 60 min	N/A	N/A
Blanket Compatibility	Performance evaluated when utilizing a mature blanket Blanket performance	No transfer defects and no Picking above the limit is allowed	Cleaner pages were able to remove all Transfer defect and reduce the picking to below the limit	After cleaning small transfer defects and picking are still visible

Certification Validity

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



Commercial Certificate for S3 & S4 Evaluation Report



For HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot



Supplier Contact Information

Supplier Name	Arctic Paper Munkedals AB
Supplier Address	Bruksvägen, Munkedal SE-45581
Supplier Country	Sweden
Product Name	Munken Kristall ID
Product Category	Uncoated
Grammage (gsm)/Basis weight (#)	120 gsm
Microns/Caliper	136 microns
Certification Number	SG7600-22-120
Certification Center	HP Singapore
Date of Evaluation	6 Jul 2022
Evaluated on	HP Indigo 7600 multi-shot
Certified for	HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot
Evaluation Process	Interpolation

Evaluation	Measure	Result	Grade (stars)	Comments
Runability			***	
Simplex	Number of Jams			
Duplex	Number of Jams			
Fixing			***	
Peeling	100% K in 4 color mode, % ink remaining			
Photo Peeling	290% K in 4 color mode, % ink remaining			
Photo Recommended		Yes		
White Ink Recommended				
Blanket Compatibility			***	
Evaluation Result		PASS		

Comment Detail: Re-certification of RI5500-17-5122

Above results by interpolation.

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.

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) Ink-transferability after a self-cleaning procedure “cleaner pages” (intended to clean the blanket’s release layer and restore transfer performance) has been performed.

Approval for Photo and White Ink Applications:

Applications that use white ink and or light cyan/light magenta inks or photo related applications are strongly recommended to use robust media products 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: excellent runnability / high ink adhesion / excellent blanket performance with no or very little issues, should generally work well for high coverage and photo applications.
- ☆☆ Recommended substrate: good runnability / good ink adhesion / print cleaners are generally required at a nominal frequency.
- ☆ Good substrate: acceptable runnability / acceptable ink adhesion / print cleaners are generally required more frequently.

		☆☆☆	☆☆	☆
	Measurement	Best-performing substrate	Recommended substrate	Good substrate
Transport	Runnability	No jam and minor issues	1 jam or minor issues	1 jam and minor issues
	Peeling: 100% K	>90%	>80%	>80% at one hour
	Photo peeling: 290% K, 10 or 60 minutes	>80% after 10 or 60 min	N/A	N/A
Blanket Compatibility	Performance evaluated when utilizing a mature blanket Blanket performance	No transfer defects and no Picking above the limit is allowed	Cleaner pages were able to remove all Transfer defect and reduce the picking to below the limit	After cleaning small transfer defects and picking are still visible

Certification Validity

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



Commercial Certificate for S3 & S4 Evaluation Report



For HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot



Supplier Contact Information

Supplier Name	Arctic Paper Munkedals AB
Supplier Address	Bruksvägen, Munkedal SE-45581
Supplier Country	Sweden
Product Name	Munken Kristall ID
Product Category	Uncoated
Grammage (gsm)/Basis weight (#)	150 gsm
Microns/Caliper	170 microns
Certification Number	SG7600-22-121
Certification Center	HP Singapore
Date of Evaluation	6 Jul 2022
Evaluated on	HP Indigo 7600 multi-shot
Certified for	HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot
Evaluation Process	Interpolation

Evaluation	Measure	Result	Grade (stars)	Comments
Runability			***	
Simplex	Number of Jams			
Duplex	Number of Jams			
Fixing			***	
Peeling	100% K in 4 color mode, % ink remaining			
Photo Peeling	290% K in 4 color mode, % ink remaining			
Photo Recommended		Yes		
White Ink Recommended				
Blanket Compatibility			***	
Evaluation Result		PASS		

Comment Detail: Re-certification of RI5500-17-5123.

Above results by interpolation.

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.

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) Ink-transferability after a self-cleaning procedure “cleaner pages” (intended to clean the blanket’s release layer and restore transfer performance) has been performed.

Approval for Photo and White Ink Applications:

Applications that use white ink and or light cyan/light magenta inks or photo related applications are strongly recommended to use robust media products 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: excellent runnability / high ink adhesion / excellent blanket performance with no or very little issues, should generally work well for high coverage and photo applications.
- ☆☆ Recommended substrate: good runnability / good ink adhesion / print cleaners are generally required at a nominal frequency.
- ☆ Good substrate: acceptable runnability / acceptable ink adhesion / print cleaners are generally required more frequently.

		☆☆☆	☆☆	☆
	Measurement	Best-performing substrate	Recommended substrate	Good substrate
Transport	Runnability	No jam and minor issues	1 jam or minor issues	1 jam and minor issues
	Peeling: 100% K	>90%	>80%	>80% at one hour
	Photo peeling: 290% K, 10 or 60 minutes	>80% after 10 or 60 min	N/A	N/A
Blanket Compatibility	Performance evaluated when utilizing a mature blanket Blanket performance	No transfer defects and no Picking above the limit is allowed	Cleaner pages were able to remove all Transfer defect and reduce the picking to below the limit	After cleaning small transfer defects and picking are still visible

Certification Validity

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



Commercial Certificate for S3 & S4 Evaluation Report



For HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot



Supplier Contact Information

Supplier Name	Arctic Paper Munkedals AB
Supplier Address	Bruksvägen, Munkedal SE-45581
Supplier Country	Sweden
Product Name	Munken Kristall ID
Product Category	Uncoated
Grammage (gsm)/Basis weight (#)	170 gsm
Microns/Caliper	192 microns
Certification Number	SG7600-22-122
Certification Center	HP Singapore
Date of Evaluation	6 Jul 2022
Evaluated on	HP Indigo 7600 multi-shot
Certified for	HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot
Evaluation Process	Interpolation

Evaluation	Measure	Result	Grade (stars)	Comments
Runability			***	
Simplex	Number of Jams			
Duplex	Number of Jams			
Fixing			***	
Peeling	100% K in 4 color mode, % ink remaining			
Photo Peeling	290% K in 4 color mode, % ink remaining			
Photo Recommended		Yes		
White Ink Recommended				
Blanket Compatibility			***	
Evaluation Result		PASS		

Comment Detail: Re-certification of RI5500-17-5124.

Above results by interpolation.

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.

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) Ink-transferability after a self-cleaning procedure “cleaner pages” (intended to clean the blanket’s release layer and restore transfer performance) has been performed.

Approval for Photo and White Ink Applications:

Applications that use white ink and or light cyan/light magenta inks or photo related applications are strongly recommended to use robust media products 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: excellent runnability / high ink adhesion / excellent blanket performance with no or very little issues, should generally work well for high coverage and photo applications.
- ☆☆ Recommended substrate: good runnability / good ink adhesion / print cleaners are generally required at a nominal frequency.
- ☆ Good substrate: acceptable runnability / acceptable ink adhesion / print cleaners are generally required more frequently.

		☆☆☆	☆☆	☆
	Measurement	Best-performing substrate	Recommended substrate	Good substrate
Transport	Runnability	No jam and minor issues	1 jam or minor issues	1 jam and minor issues
	Peeling: 100% K	>90%	>80%	>80% at one hour
	Photo peeling: 290% K, 10 or 60 minutes	>80% after 10 or 60 min	N/A	N/A
Blanket Compatibility	Performance evaluated when utilizing a mature blanket Blanket performance	No transfer defects and no Picking above the limit is allowed	Cleaner pages were able to remove all Transfer defect and reduce the picking to below the limit	After cleaning small transfer defects and picking are still visible

Certification Validity

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



Commercial Certificate for S3 & S4 Evaluation Report



For HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot



Supplier Contact Information

Supplier Name	Arctic Paper Munkedals AB
Supplier Address	Bruksvägen, Munkedal SE-45581
Supplier Country	Sweden
Product Name	Munken Kristall ID
Product Category	Uncoated
Grammage (gsm)/Basis weight (#)	200 gsm
Microns/Caliper	226 microns
Certification Number	SG7600-22-123
Certification Center	HP Singapore
Date of Evaluation	6 Jul 2022
Evaluated on	HP Indigo 7600 multi-shot
Certified for	HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot
Evaluation Process	Interpolation

Evaluation	Measure	Result	Grade (stars)	Comments
Runability			***	
Simplex	Number of Jams			
Duplex	Number of Jams			
Fixing			***	
Peeling	100% K in 4 color mode, % ink remaining			
Photo Peeling	290% K in 4 color mode, % ink remaining			
Photo Recommended		Yes		
White Ink Recommended				
Blanket Compatibility			***	
Evaluation Result		PASS		

Comment Detail: Re-certification of RI5500-17-5125

Above results by interpolation.

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.

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) Ink-transferability after a self-cleaning procedure "cleaner pages" (intended to clean the blanket's release layer and restore transfer performance) has been performed.

Approval for Photo and White Ink Applications:

Applications that use white ink and or light cyan/light magenta inks or photo related applications are strongly recommended to use robust media products 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: excellent runnability / high ink adhesion / excellent blanket performance with no or very little issues, should generally work well for high coverage and photo applications.
- ☆☆ Recommended substrate: good runnability / good ink adhesion / print cleaners are generally required at a nominal frequency.
- ☆ Good substrate: acceptable runnability / acceptable ink adhesion / print cleaners are generally required more frequently.

		☆☆☆	☆☆	☆
	Measurement	Best-performing substrate	Recommended substrate	Good substrate
Transport	Runnability	No jam and minor issues	1 jam or minor issues	1 jam and minor issues
	Peeling: 100% K	>90%	>80%	>80% at one hour
	Photo peeling: 290% K, 10 or 60 minutes	>80% after 10 or 60 min	N/A	N/A
Blanket Compatibility	Performance evaluated when utilizing a mature blanket Blanket performance	No transfer defects and no Picking above the limit is allowed	Cleaner pages were able to remove all Transfer defect and reduce the picking to below the limit	After cleaning small transfer defects and picking are still visible

Certification Validity

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



Commercial Certificate for S3 & S4 Evaluation Report



For HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot



Supplier Contact Information

Supplier Name	Arctic Paper Munkedals AB
Supplier Address	Bruksvägen, Munkedal SE-45581
Supplier Country	Sweden
Product Name	Munken Kristall ID
Product Category	Uncoated
Grammage (gsm)/Basis weight (#)	240 gsm
Microns/Caliper	271 microns
Certification Number	SG7600-22-124
Certification Center	HP Singapore
Date of Evaluation	6 Jul 2022
Evaluated on	HP Indigo 7600 multi-shot
Certified for	HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot
Evaluation Process	Interpolation

Evaluation	Measure	Result	Grade (stars)	Comments
Runability			***	
Simplex	Number of Jams			
Duplex	Number of Jams			
Fixing			***	
Peeling	100% K in 4 color mode, % ink remaining			
Photo Peeling	290% K in 4 color mode, % ink remaining			
Photo Recommended		Yes		
White Ink Recommended				
Blanket Compatibility			***	
Evaluation Result		PASS		

Comment Detail: Re-certification of RI5500-17-5126.

Above results by interpolation.

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.

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) Ink-transferability after a self-cleaning procedure “cleaner pages” (intended to clean the blanket’s release layer and restore transfer performance) has been performed.

Approval for Photo and White Ink Applications:

Applications that use white ink and or light cyan/light magenta inks or photo related applications are strongly recommended to use robust media products 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: excellent runnability / high ink adhesion / excellent blanket performance with no or very little issues, should generally work well for high coverage and photo applications.
- ☆☆ Recommended substrate: good runnability / good ink adhesion / print cleaners are generally required at a nominal frequency.
- ☆ Good substrate: acceptable runnability / acceptable ink adhesion / print cleaners are generally required more frequently.

		☆☆☆	☆☆	☆
	Measurement	Best-performing substrate	Recommended substrate	Good substrate
Transport	Runnability	No jam and minor issues	1 jam or minor issues	1 jam and minor issues
	Peeling: 100% K	>90%	>80%	>80% at one hour
	Photo peeling: 290% K, 10 or 60 minutes	>80% after 10 or 60 min	N/A	N/A
Blanket Compatibility	Performance evaluated when utilizing a mature blanket Blanket performance	No transfer defects and no Picking above the limit is allowed	Cleaner pages were able to remove all Transfer defect and reduce the picking to below the limit	After cleaning small transfer defects and picking are still visible

Certification Validity

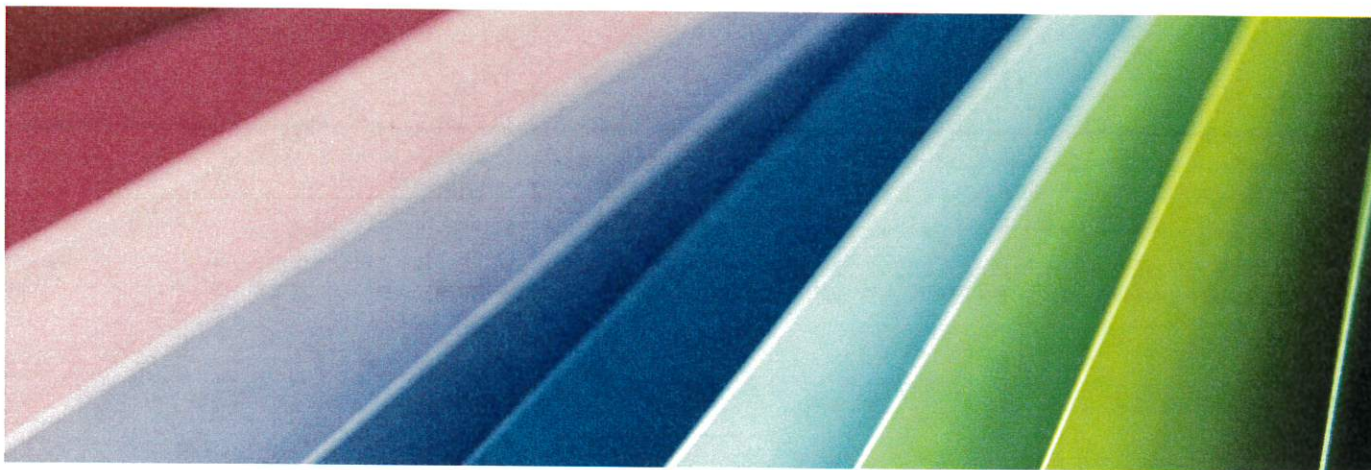
This substrate is certified for the next two years from the date of evaluation, provided there is no change to the paper properties or production processes. At the end of two years from the original evaluation date, if there have been no changes in paper properties or production processes, the certification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



Commercial Certificate for S3 & S4 Evaluation Report



For HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot



Supplier Contact Information

Supplier Name	Arctic Paper Munkedals AB
Supplier Address	Bruksvägen, Munkedal SE-45581
Supplier Country	Sweden
Product Name	Munken Kristall ID
Product Category	Uncoated
Grammage (gsm)/Basis weight (#)	300 gsm
Microns/Caliper	339 microns
Certification Number	SG7600-22-125
Certification Center	HP Singapore
Date of Evaluation	6 Jul 2022
Evaluated on	HP Indigo 7600 multi-shot
Certified for	HP Indigo 15K / 12000 / 10000 / 7000 series / multi-shot
Evaluation Process	Interpolation

Evaluation	Measure	Result	Grade (stars)	Comments
Runability			***	
Simplex	Number of Jams			
Duplex	Number of Jams			
Fixing			***	
Peeling	100% K in 4 color mode, % ink remaining			
Photo Peeling	290% K in 4 color mode, % ink remaining			
Photo Recommended		Yes		
White Ink Recommended				
Blanket Compatibility			***	
Evaluation Result		PASS		

Comment Detail: Re-certification of RI5500-17-5127

Above results by interpolation.

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.

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) Ink-transferability after a self-cleaning procedure "cleaner pages" (intended to clean the blanket's release layer and restore transfer performance) has been performed.

Approval for Photo and White Ink Applications:

Applications that use white ink and or light cyan/light magenta inks or photo related applications are strongly recommended to use robust media products 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: excellent runnability / high ink adhesion / excellent blanket performance with no or very little issues, should generally work well for high coverage and photo applications.
- ☆☆ Recommended substrate: good runnability / good ink adhesion / print cleaners are generally required at a nominal frequency.
- ☆ Good substrate: acceptable runnability / acceptable ink adhesion / print cleaners are generally required more frequently.

		☆☆☆	☆☆	☆
	Measurement	Best-performing substrate	Recommended substrate	Good substrate
Transport	Runnability	No jam and minor issues	1 jam or minor issues	1 jam and minor issues
	Peeling: 100% K	>90%	>80%	>80% at one hour
	Photo peeling: 290% K, 10 or 60 minutes	>80% after 10 or 60 min	N/A	N/A
Blanket Compatibility	Performance evaluated when utilizing a mature blanket Blanket performance	No transfer defects and no Picking above the limit is allowed	Cleaner pages were able to remove all Transfer defect and reduce the picking to below the limit	After cleaning small transfer defects and picking are still visible

Certification Validity

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

