CONQUEROR CONNOISSEUR

Common Attributes	Units	Test Method	110gsm	160gsm	300gsm
Wood Pulp & Bleach Type			ECF Cotton Linters, ECF Virgin Woodfree		
Printing Process Suitability			Litho, Letterpress, Silk Screen, Dry Offset (Toray)		
Mono laser Guaranteed			✓		
Colour Laser Guaranteed			✓	Not guaranteed for office print technologies	
Mono Ink Jet Guaranteed			✓		
Colour Ink Jet Guaranteed			✓		
Recommended p.H. of Fount Solution			5.5 ± 0.5		
Surface p.H.		TAPPI 5290M	<<--------------≈ 6.5 --------------->>		7.5
None Aging Credentials		ISO 9706	no but>100 yrs	no but>100 yrs	Yes
Environmental Label		ISO 14001	Yes		
Quality Management		ISO 9002 : 2000	Yes		
Moisture Content	%	ISO 287	6		6.5
Relative Humidity	%	TAPPI T502	40 - 60		

100% Cotton
100% cotton furnish

Caliper	µm	ISO 534	165	256	475
Whitest Shade Opacity	%	ISO 2471	92	96	N/A
Bendtsen Roughness	ml/min	ISO 2494	1000	1000	1000
Stiffness M Direction	mN	ISO 2493	240	400	160
C Direction		L+W, TABER	120	200	80

Fine Wove
High cotton content, remaining furnish; ECF wood free virgin fibre

Caliper	µm	ISO 534	140	202	335
Whitest Shade Opacity	%	ISO 2471	92	96	N/A
Bendtsen Roughness	ml/min	ISO 2494	200	200	200
Stiffness M Direction	mN	ISO 2493	240	420	160
C Direction		L+W, TABER	120	260	80

These specifications are the property of Arjo Wiggins Fine Papers Ltd and may be changed without prior notice. They are target values only for use as a guide.

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Printing Hints Sheet

CONQUEROR CONNOISSEUR *100% COTTON*

A luxurious 100% cotton grade, available in the substantial 110g paper weight, with or without a prestigious shadow watermark, 160 and 300g as well as with matching tissue lined DL or C5 envelopes.

PRINTING GUIDELINES

1. SCREEN RULING

For standard process colour printing it is not usual to exceed 150 lpi however depending upon the image, screen rulings of 200 lpi can be achieved with careful ink control. Some dark four-colour images may benefit from Under Colour Removal techniques and/or the use of 'Stochastic' (FM) screening technologies.

2. PRINTING INKS

Use conventional positive drying, quick setting, 'hard dry' inks, with or without I.R. drying assistance. *Avoid the use of press stable / stay fresh ink systems.* UV cured inks can be used. Use laser suitable inks when subsequent laser processing is required.

3. PAPER HANDLING & TIPS TO AVOID SET OFF

As the delivery stack grows quickly when printing boards, select a slow press speed and do not allow the delivery stack to become too large, as the prints at the bottom of the stack will still be wet and therefore less resistance to marking as compared to printing paper weights. It may be helpful to turn off the delivery sheet joggers and use a 35 micron 'Anti-set off' spray powder (can use a vanishing grade). Also the sheet gripper release should be adjusted so the board lands gently in the delivery with the minimum of movement. The paper weights are much less likely to set off. It is recommended to protect the paper from environmental changes in humidity and temperature at all times, by the use of pallet covers or stretch wrap.

4. VARNISHING & SEALING

A gloss varnish is not easily achieved. To obtain successful varnishing results it is essential to pre-seal the surface with a large application of sealer. The UV Silk Screen process must be used to achieve sufficient varnish weight. The first application should be with a Matt UV varnish, followed by repeat varnishings of Gloss UV varnish until the desired effect is achieved. Be certain the printing inks are suitable for UV varnish / seals and ensure they are thoroughly dry before sealer and varnish application. Other machine varnish applications are not advisable as the visual effect will be disappointing. Sealers can be used to give minimal protection to printed material to help avoid marking when further processing is required. Stay fresh inks (*not recommended*) may mark more readily so a seal may be of benefit, particularly when the prints contain dark areas. Best results are obtained when applying the sealer after the inks are thoroughly dry. Some sealers may not be compatible with laser equipment and UV varnishing is only recommended for the text and board weights. Areas to be later laser or ink jet printed should be free from varnishes or sealers to get the best printing performance.

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5. FINISHING

EMBOSSING (BLIND)
Embossings may be done with relative ease. For deep or large embossings it is recommended to have the corners of the die rounded off to help prevent creases forming from them. Laser machines do not care for embossed images, however shallow embosses are less likely to cause problems. Embossed papers will be more prone to miss feeds and jams within office printing technologies.

DIE CUTTING
Die cutting can be performed without difficulty. Feeding problems can be experienced with die cut or perforated papers on office printing technologies.

LASER CUTTING
Laser cutting can be performed easily however as with any paper there will be some scorching evident around the cut area. Feeding problems can be experienced with laser cut papers on office printing technologies.

HOT FOIL BLOCKING
Hot Foil Blocking can be performed with ease. This is not a recommended print process for subsequent laser printing. If laser printing is essential ensure the foiled image is indented to below the paper surface and always trial the foil and paper combination to assess the compatibility with the laser printer prior to committing to a long print run.

CREASING
The board weight will require pre-creasing by a channel and matrix system before folding to help avoid cracks appearing at the fold. The raised bead formed by the creasing rule should always be on the inside of the fold.

DIE STAMPING
Die stamping may be performed with relative ease. This is not a recommended print technique for subsequent office printing as the relief image may lead to feeding difficulties. A shallow emboss is less likely to cause feeding problems. If the die stamped work is intended for subsequent laser printing ensure the materials used are laser suitable and trial on the intended office machine before committing to a large print run, whenever possible.

THERMOGRAPHY
Conqueror Connoisseur *100% Cotton* can be thermographically printed. Thermography prints are not recommended for laser printing. If subsequent laser printing is essential, ensure to check the suitability of the thermography powder for use with laser printers. Also note thermography can distort paper and so promote feeding problems with office printers.

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FILM LAMINATING

Due to the texture some 'silvering' will be evident after lamination, however **Conqueror Connoisseur** *100% Cotton* will accept laminates easily. To help reduce 'silvering' increase the laminating pressure and apply excess adhesive if possible. The increased amount of adhesive will probably extend the time required to reach a strong bond between paper and laminate surfaces. Be certain the printing inks are suitable for laminating and ensure they are thoroughly dry before laminating.

DESK TOP PERFORMANCE

Conqueror Connoisseur *100% Cotton* 110gsm is guaranteed for pre-printing and subsequent use on colour and mono desk-top laser or inkjet machines, subject to manufacturer's guidance on grammage, roughness and use. Please note, where especially sharp image reproduction is required, it is recommended that you use a smoother **Conqueror** finish, i.e. *CX22*. Ensure laser suitable inks and materials are used for pre-printing.