

Printing Hints Sheet

Conqueror Texture



Common Attributes	Units	Test Method	80gsm	90gsm	100gsm	120gsm	160gsm	220gsm	250gsm	300gsm	350gsm
Wood Pulp & Bleach Type			ECF Cotton Linters (not CX22), ECF Virgin Woodfree, (25% Recycled Post Consumer Fibre and 75% FSC virgin fibre only for FSC Recycled grades)								
Printing Process Suitability			Litho, Letterpress, Silk Screen, Dry Offset (Toray)								
Mono laser Guaranteed			Not guaranteed for office print technology								
Colour Laser Guaranteed											
Mono Ink Jet Guaranteed											
Colour Ink Jet Guaranteed											
Recommended p.H. of Fount Solution			5.5 ± 0.5								
Surface p.H.		TAPPI 5290M	? 7.5, (? 6.5 for Stonemarque and Microlaid 80-120gsm inclusive)								
None Aging Credentials		ISO 9706	Yes (80-120gsm Stonemarque and Microlaid inclusive, no but >100 years)								
Environmental Label		ISO 14001	Yes								
Quality Management		ISO 9002 : 2000	Yes								
Moisture Content	%	ISO 287	5.7				6.7				
Relative Humidity	%	TAPPI T502	35 – 55				40 - 60				

Laid

Caliper	µm	ISO 534	116	131	145	168	222	310	355	430	500
Whitest Shade Opacity	%	ISO 2471	84	86	88	91	94				
Bendtsen Roughness	ml/min	ISO 2494	850	850	900	900	1200	1700	1700	1700	1700
Stiffness M Direction	mN	ISO 2493	100	150	200	300	80	100	150	240	375
C Direction		L+W, TABER	60	90	120	180	45	60	80	130	165

FSC Recycled Laid

Caliper	µm	ISO 534			145					430	
Whitest Shade Opacity	%	ISO 2471			90						
Bendtsen Roughness	ml/min	ISO 2494			900					1700	
Stiffness M Direction	mN	ISO 2493			200					240	
C Direction		L+W, TABER			120					130	

Microlaid

Caliper	µm	ISO 534			140	168	235	310		430	
Whitest Shade Opacity	%	ISO 2471			92	94	96				
Bendtsen Roughness	ml/min	ISO 2494			550	550	1000	1000		1800	
Stiffness M Direction	mN	ISO 2493			160	290	55	100		240	
C Direction		L+W, TABER			100	160	30	60		130	

Stonemarque

Caliper	µm	ISO 534			159*	187*	230*	320		420*	
Whitest Shade Opacity	%	ISO 2471			90	92	95			N/A	
Bendtsen Roughness	ml/min	ISO 2494			? 1100	? 1100	? 1500	? 1500		? 1500	
Stiffness M Direction	mN	ISO 2493			200	280	25	130		160	
C Direction		L+W, TABER			100	150	15	65		80	

* Due to the texturing process the thickness of the paper will vary hence this figure is a guide only.

? Conqueror Texture Stonemarque is textured to a visual standard therefore it is not possible to give accurate roughness values.

Contour

Caliper	µm	ISO 534			132*	156*	210*	270*		430*	
Whitest Shade Opacity	%	ISO 2471			☎	☎	☎				
Bendtsen Roughness	ml/min	ISO 2494			? 800	? 800	? 800	? 1000		? 1300	
Stiffness M Direction	mN	ISO 2493									
C Direction		L+W, TABER									

* Due to the embossing process the thickness of the paper will vary so the caliper values are for guidance only.

☎ The embossing process changes the opacity of the paper and it is therefore not possible to give accurate values. For further details please phone the mill.

? Conqueror Texture Contour is textured to a visual standard therefore it is not possible to give accurate roughness or stiffness values.

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CONQUEROR TEXTURE STONEMARQUE

Conqueror Texture Stonemarque has a soft random felt mark finish. It is available in three colours across five weights with a matching range of envelopes. Watermarked and unwatermarked versions are available.

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 large amounts of either Acrylic or Glycol sealers. 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 varnishing and sealers and ensure they are thoroughly dry before sealer and varnish application. Other machine varnish applications are not advisable as the visual effect may 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. Embossed papers will be more prone to miss feeds and jams within office printing technologies, however shallow embosses are less likely to cause problems. A ghost image of the original stonemarque texture may be seen within the embossing.

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. However some very fine detailed images may be compromised by the stonemarque texture in which case the image area will require debossing prior to foil blocking. 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 Texture Stonemarque 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.

FILM LAMINATING

Conqueror Texture Stonemarque will accept laminates easily however since it is an uncoated paper some silvering may be evident. To reduce silvering apply an excess of adhesive if possible and increase the laminating pressure. 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.

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DESK TOP PERFORMANCE

Conqueror Texture Stonemarque is guaranteed for offset lithography pre-printing and subsequent use with colour laser and inkjet machines subject to manufacturer's guidance on grammage, roughness and use, up to and including 100gsm. Ensure laser suitable inks and materials are used for pre-printing. Please note, where especially sharp image reproduction is required, it is recommended that you use a smoother Conqueror finish, i.e. CX22.

Please note the information and advice contained in this section is the property of Arjo Wiggins Fine Papers Ltd and may be subject to change without prior notice. It is for guidance only so ensure the work processes are discussed with the relevant parties prior to printing. We are able to offer bespoke line watermark versions of Conqueror Texture Stonemarque in special sizes and grammages, but in a standard shade from 1 tonne.