

## Waterbased Coatings – Extensive Range

**Packaging – Food** – Products tested and accredited according to independent third parties for compliance to European Food Law, for direct and indirect food packaging. These products are quick drying and flexible with good block and rub resistance for packaging.

	Gloss	Drying	Block Resistance	Rub Resistance	Slip	Additional properties
W707 Direct Food Contact Emulsion	7	8	8	8	7	Temporary barrier against oil and fat.
LMWB4000 LM Gloss Emulsion	7	8	8	8	7	Temporary barrier against oil and fat.
LMWB4500 HS Gloss Emulsion	7	8	9	9	8	Temporary barrier against oil and fat.

**Packaging – non-food – commercial range** – This is the standard range of products for most applications and caters for all finishes from super matt to high gloss, all formulated with good all round properties making the range versatile for different applications and highly competitive in the market.

	Gloss	Drying	Block Resistance	Rub Resistance	Slip	Additional properties
W140 Double Sided Matt	2	9	7	6	6	Viscosities from 15 to 60 seconds
W240 Double Sided Silk	4	8	7	6	6	Viscosities from 15 to 60 seconds
W340 Double Sided Neutral	5	8	7	6	6	Viscosities from 15 to 60 seconds
W440 Double Sided Gloss	7	8	7	6	6	Viscosities from 15 to 60 seconds
W540 Single Sided Gloss	8	7	6	6	6	Viscosities from 15 to 60 seconds
W573 Gloss Coating	7	8	7	6	6	Viscosities from 15 to 60 seconds

**High End Commercial Printing – Alternative** selection of products to the non-food commercial range with improved rub and scuff resistance and greater all round performance on a variety of applications for high end packaging applications. Also formulated to improve runability on a variety of coater and machine types.

	Gloss	Drying	Block Resistance	Rub Resistance	Slip	Additional information
W100 Super Matt	1	9	8	7	7	Premium flat matt finish.
W102 Smooth Matt	2	9	8	8	7	Smoother finish on porous boards.
W308 Satin Sealer	4	9	8	8	7	Excellent all round product
W480 DS Gloss	7	8	8	8	7	Excellent Cracking tolerance.
W914 High Gloss	8	7	6	8	7	Reduced dryback effect over inks.

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**High Slip/Rub** – A range of packaging coatings formulated with reduced surface friction and improved rub resistance, to enable better feed in the delivery and greater protection to the print. Such products are often employed on pharmaceutical packaging and similar high end applications.

	Gloss	Drying	Block Resistance	Rub Resistance	Slip	Additional properties
W143 High Rub Packaging Matt	2	9	9	8	8	Smooth matt finish
W247 High Rub Packaging Silk	4	9	9	8	8	Excellent protection
W482 High Rub DS Gloss	7	8	9	9	8	Good Anti craze
W551 High Rub SS High Gloss	8	7	8	9	8	Quick drying high gloss
W567-HS Super High Gloss High Slip	9	6	8	9	8	Premium gloss finish.
W793 High Rub Sealer	7	8	9	10	9	Highest Rub resistance.

**Cigarette Packaging** – Formulated to be low odour and compliant with the demands of BAT, JTI and PMI relating to the production of tobacco packaging. Versions are available in a variety of finishes for different applications, from sheetfed offset to gravure.

	Gloss	Drying	Block Resistance	Rub Resistance	Slip	Additional Properties
W106 WB Matt Emulsion TP	2	8	8	7	8	Low odour and highly matt.
W205 WB Silk Emulsion TP	4	8	8	7	8	Low odour and silk/non-enhancing
W794 WB High Gloss TP Emulsion	8	7	8	8	8	High gloss and low odour
W534 High Gloss Gravure Emulsion	8	7	7	8	8	Low viscosity for gravure printing.

**High Speed Low Curl Range** - A specialist range of emulsions designed to limit sheet distortion and paper curl, particularly aimed at papers of weights below 115gsm. All are categorized by fast drying, smooth appearance, good block and rub resistance properties and are suitable for two sided printing.

	Gloss	Drying	Block Resistance	Rub Resistance	Slip	Additional Properties
W109 Low Curl Matt	2	9	8	8	7	Reduced sheet distortion
W238 Low Curl Silk	4	9	8	8	7	Reduced sheet distortion
W350 High Speed Neutral	5	9	8	8	7	Reduced sheet distortion
W407 Low Curl Gloss Emulsion	7	9	8	8	7	Reduced sheet distortion

## Difficult stocks

This section details more specialist products designed for difficult substrates, where standard products do not offer the level of performance required.

**Uncoated Papers** – Many uncoated papers suffer from absorption of the coating into the paper. This range hold out and protect the printwork much better than standard emulsions and are generally higher in solids. The properties take into account the intended application.

	Gloss	Drying	Block Resistance	Rub Resistance	Slip	Additional Properties
W739 Uncoated Stock Emulsion	<i>Varies*</i>	6	6	7	6	<i>High hold out.</i>
W759 Low Curl Uncoated Stock	<i>Varies*</i>	6	6	7	6	<i>For low gram mage uncoated papers</i>
W510 High Slip Sealer	<i>Varies*</i>	7	7	8	8	<i>High slip/rub surface</i>

\*Papers and board of different absorbency will give rise to different finishes, but for the majority of suitable materials a neutral/low gloss finish is achieved.

**Non-absorbent substrates and slow drying inks** – Fast drying with excellent flexibility and adhesion to various substrate types. Due to the nature of many “non-paper” substrates it is important to check the surface tension of the material is suitable for each product initially. On rare occasion’s corona treatment may be a viable option for particularly difficult to adhere to materials. All products also exhibit excellent anti-crazing properties as well as high scuff resistance. See next page for table of properties.

	Gloss	Drying	Block Resistance	Rub Resistance	Slip	Additional properties
W117 Matt Anti-Craze Emulsion	1	9	7	7	7	<i>Excellent crazing tolerance.</i>
W370 DS Neutral Anti-Craze Emulsion	4	9	7	7	7	<i>Excellent crazing tolerance.</i>
W431 High Slip Metallised Paper Gloss	7	8	9	9	9	<i>Excellent crazing tolerance and suitability to non-porous substrates.</i>
W475 Non Crazing Emulsion	8	7	8	8	7	<i>Excellent crazing tolerance, quick drying.</i>
W916 High Gloss AC Coating	9	6	7	8	7	<i>High Gloss result and particularly good over slow oxidizing inks.</i>
W436 HSF D Gloss Emulsion	7	9	8	9	9	<i>Excellent crazing tolerance and fast drying.</i>

**Barrier Coatings** – A specialist range of coatings that offer a high specification barrier to various properties, such as water resistance used for packaging of liquid goods or outer labels exposed to wet conditions.

Heat resistant coatings such as non-LM microwaveable packaging, coffee cup coasters etc. These are also commonly employed in conjunction with blister packing as a heat resistant coating to stock reverse of cartons sticking to blister pack jaws. Alcohol resistant coatings such as those used for coating whiskey labels and high strength alcohol products offering excellent resistance as well as good all-round properties.

	Gloss	Drying	Block Resistance	Rub Resistance	Slip	Additional Properties
W425 Gloss A/R Emulsion	8	7	9	8	7	Highly resistant to alcohol
W705 Heat Resistant Emulsion	8	7	9	8	7	Heat resistance up to 220C.
W711 Water Resistant Emulsion	7	9	10	10	9	High water barrier – COBB values of <1gsm on rear side of many boards.
W737 Mould Resistant Coating	7	9	10	10	9	Inhibits Mould growth.
W785 Soap and Alkali Resistant Emulsion	8	8	9	9	8	Excellent detergent resistance.
W797 Beer Label Coating	7	9	10	10	9	Good water barrier, fast drying with excellent rub in bottling lines.
W800 Anti Soiling Emulsion	7	9	10	10	9	Excellent for currency printing as offers highly protective film.

**Specialist Coatings** – Various applications of a specific nature require particular coatings with tailored properties making them primarily suitable for this certain area. Often standard coatings can be used but are not as fail-safe as these more technically advanced options.

- **Lamination Coatings** – topcoat waterbased emulsions designed to protect and seal inks well, but also offer optimum adhesion to subsequent lamination films applied to the coating.
- **Anti Slip Coatings** – Specialist low slip coatings for packaging lines requiring high friction in processing. Different products offer specific slip results and we can cater for any requirement.
- **Drip Off Coatings** – A range of waterbased coatings designed for application via the coating unit as a topcoat in the drip-off process. For use primarily with suitable oil based sealer for greatest contrast of effects.
- **Primers** – Used to promote adhesion of subsequent finishing operations, such as UV Varnishing, inline, offline and during various specific processing. Many standard coatings can also be used as spot primers etc but this is a more specific high spec range of products designed primarily to act as primers.
- **Blister Pack Coatings** – Specialist coatings designed to be used effectively as an adhesive to bond various plastic materials to carton board. These melt at crucially low temperatures and seal more effectively than any standard coating.

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- **Haptic Coatings** – Coatings with a sensory effect such as feel that give added value to luxury packaging.
- **Release Coatings** – For applications such as lottery scratch cards, game and casino playing cards, and high release applications.
- **Ram Punchable** – Specifically formulated to give optimum performance on post-process ram punching of specific designs. Good release characteristics help the die cutters produce clean cuts on the selected substrate.
- **Calendar Coatings** – designed primarily for calendaring process to give ultimate gloss results
- **Heatset Web Offset** – Specifically formulated with excellent wetting characteristics and good slip to help reduce the amount of additional silicone required in further processing. These are also formulated to withstand high working temperatures of >100°C that are commonly associated with heatset ovens, without melting or sticking.

	Gloss	Drying	Block Resistance	Rub Resistance	Slip	Additional Properties
W224 Lamination Silk	4	8	7	6	5	<i>For difficult lamination jobs.</i>
W754 Lamination Gloss (NEW)	8	7	6	6	4	<i>Wax-free formula for ultimate adhesion.</i>
W214 Low Slip Silk	4	8	7	6	3	<i>Slip of 0.50static in a silk, .non-enhancing finish</i>
W572 Low Slip Gloss Emulsion	8	7	6	6	3	<i>Slip of 0.50static – high friction for specific packing lines.</i>
W172 Matt Drip-Off	2	9	7	7	7	<i>Matt topcoat – best used over gloss OPV.</i>
W457 Gloss Drip-Off	7	8	7	7	7	<i>Gloss topcoat – commonly used over matt OPV.</i>
W121 Matt Primer Emulsion	2	9	7	7	6	<i>Suitable for offline spot or flood varnishing.</i>
W717 UV Spot Primer	5	8	7	7	7	<i>Best suited to offline spot varnishing – Neutral finish.</i>
W469 WB Gloss Primer	7	8	7	7	7	<i>Offline Spot and flood varnishing</i>
W769 Inline Primer Emulsion (NEW)	8	7	6	5	6	<i>For inline coater for flood varnishing</i>
W816 High Adhesion Primer (NEW)	7	8	6	6	6	<i>For non-porous substrates. Acts as primer for inks too.</i>
W703 Blister Pack Emulsion	8	7	5	7	5	<i>Proven for use with PVC and PET-G blisters materials.</i>
W160 Soft Touch Coating	1	7	6	6	6	<i>High matt with a gentle feel to the print.</i>

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W185 WB Tactile Coating (NEW)	1	7	7	6	6	<i>Imitation suede-like feel to the print.</i>
W413 Scratch Off WB High Gloss	7	8	9	9	10	<i>For use on lottery scratch cards and such with appropriate silver scratch-off inks.</i>
W720 Playing Card Emulsion	5	8	8	8	8	<i>Possesses excellent "fanning" effect on playing cards of all types.</i>
W206 Ram Punch Silk	4	8	8	9	8	<i>Special for Ram punch and die cutting with increased release.</i>
W408 Ram Punch Gloss	7	8	8	9	8	<i>As above in gloss finish.</i>
W716 Calendaring Emulsion	9	7	7	8	7	<i>High gloss calendaring coating.</i>
W530 Heatset Web Gloss	9	6	8	9	8	<i>Especially for heatset application.</i>

## Duct Applied –

**Aquaseal range of water miscible sealers** - Waterbased alternative to Oil based sealer that offer improved non-yellowing and faster drying times.

**Duct Emulsions** – All supplied at a medium viscosity to promote stability in the duct throughout the run making them easier to run compared to paste-like alternatives.

	Gloss	Drying	Block Resistance	Rub Resistance	Slip	Additional properties
W604 Aquaseal Matt	2	5	6	7	7	<i>Excellent runability</i>
W605 Aquaseal Satin/Silk	4	5	6	7	7	<i>Excellent runability</i>
W606 Aquaseal Gloss	8	8	6	7	7	<i>Excellent runability</i>
W630 Gloss Duct Emulsion	8	6	7	7	7	<i>Excellent runability</i>
W635 Satin/Silk Duct Emulsion	4	6	7	7	7	<i>Excellent runability</i>
W640 Matt Duct Emulsion	2	6	7	7	7	<i>Excellent runability</i>

## Cleaning Agents and Additives

**Cleaning chemicals** - All non-flammable low VOC cleaning solutions specific to waterbased inks and coatings.

<b>Product</b>	<b>Description</b>
<i>C700 Anilox Cleaning Gel</i>	Deep cleansing gel that can be left on the Anilox overnight to help remove dried coating deposits.
<i>C701 Emulsion Cleaner</i>	Neutral ph cleaning solution to be used as a flush cleaner for waterbased inks and varnishes. Non-corrosive.
<i>C724 Strong Emulsion Cleaner</i>	Strong alkaline cleaner for difficult and dried-on waterbased deposits.

## Additives

<b>Product</b>	<b>Description</b>
<i>AD006 Retarder</i>	Slows the drying of coatings so a useful additive to help overcome crazing issues or where the coating is simply drying too fast.
<i>AD005 WB Antifoam</i>	Used to reduce the coatings' tendency to foam improving stability over longer high speed periods.
<i>AD001 Wetting Agent</i>	Improves the coatings' ability to spread or "wet" over inks and substrate.
<i>AD066 WB Slip Additive</i>	Improves the surface slip and therefore allows sheets to glide away from each other due to reduction in friction in processing.
<i>AD004 High Rub Additive</i>	Improves rub/scuff resistance of products in packaging lines and helps avoid damage to the printed surface.