

FREE REPORT

***Lith Printing
Materials
Update***

Updated: October 2012

Tim Rudman

Background

The last book-published up-to-date list of papers and developers suitable for Lith Printing was in my last lith book 'The World of Lith Printing', published in 2006. Shortly after that Forte ceased production for the second and final time. This in turn impacted on a number of other labels listed in 'The World of Lith Printing' that used Forte emulsions.

Since then there have been various other comings and goings of papers and prototypes. I initially documented these changes periodically for the 'TWOLP' website mailing list (www.worldoflithprinting.com) and archive and as an insert for books ordered directly from me. These evolving updates became increasingly complicated as new material in them in turn became obsolete.

When the market stabilized somewhat it seemed a good time to draw up a new list, and that in turn is now subject to a number of further updates as shown below. More changes are inevitably expected and **even now in October 2012** there is still reason to hope that some good news might possibly be coming and I look forward to reporting on such matters through my mailing list at www.timrudman.com (subscribe free online).

The following list is up to date as far as I know at the time of writing and is based on personal experience; personal contacts in the business in the UK, Europe and USA, and on what I believe to be reliable other parties. I am sure there may be other products around the world I have not included and I would be interested to hear of any that have been omitted.

Although it adds some complexity to this list, I know that older materials are still in use so I have included current materials along with some discontinued materials that are still likely to be in people's darkrooms and fridges or available at retail or on EBay, and news of future developments.

There will inevitably be **periodic updates** to this revised document. Some of these will be updated straight into the text and others will be *shown and dated in red under the product*.

Disclaimer

This list grew out of a wish to make available a source of reference for materials, papers and developers, as a guide to those interested in the Lith Printing process, as to the best of my knowledge no such guide exists elsewhere.

I make no claim for it to be definitive, although it is fairly comprehensive. It is based mostly on my own personal experience in my own work and at my workshops. Where information comes from other sources that I have not personally substantiated, I say so. It is a free and unpaid resource as a service to the community and time is too short to test to death every product in a changing market. The information is provided in the spirit of sharing.

Contents

Background.....	1
Disclaimer	2
The Papers.....	6
Adox Fotoimpex (Berlin) - Agfa Resurrection	6
Adox MCC 110/112.....	6
Adox Nuance Warmtone Updated Sept 2012	6
Adox Fine Print Variotone Warmtone	6
Adox' Polywarmtone' Revival?	6
(Bergger) 'post Forte'	7
Foma (Czech Republic) Updated Sept 2012	7
Fomatone MG.....	7
Fomatone MG Classic 131 (glossy) & 132 (matt) Updated Sept 2012	8
Fomatone 532 11 ('Nature 11')	8
Fomatone MG 'Chamois' 532 and 542	8
Fomatone MG 331 AND 332.....	8
Fomabrom Variant III; 111 (glossy) & 112 (matt)	8
Fomabrom Variant IV; 123	8
Forte?	9
Fotokemika (Croatia) Discontinued: Updated Sept 2012	9
Varycon (KG) VC FB Updated Sept 2012	9
Emaks Updated Sept 2012	9
Fotospeed (UK).....	9
Fotospeed Lith.....	9
Fotospeed Bromoil paper	10

Freestyle (USA)	10
Arista.EDU Ultra RC VC & VC FB	10
Arista Silver Artist Series Fine Art B&W Paper Updated Sept 2012	10
Fuji (Japan)	11
Fujibro KM2 RC Updated Nov 2011	11
Ilford Photo (UK).....	11
(Ilford Multigrade Warmtone).....	11
New Ilford ‘Lithable Paper’	11
(Ilford Multigrade ART 300) April 2011 (data updated October 2012)	12
Kentmere (UK).....	13
Kentmere Kentona	13
Kentmere Fineprint VC Finegrain Warmtone.	13
Oriental Seagull (Japan) Updated Sept 2012	14
New 2011: Oriental Warmtone VC FB11 (New Warmer Emulsion Formulation 2011) ..	14
Rollei (Germany) Updated Sept 2012	14
Slavich (Russia)	15
Unibrom.....	15
The Developers.....	16
Fotospeed LD 20: (UK).....	16
Freestyle Arista Liquid Lith: (USA)	16
Arista premium Liquid Lith A + B	16
Maco LP-Superlith: (Germany)	16
Moersch: (Germany)	16
‘Easy Lith’	17
‘SE 5 Master set’	17
Additional additives.....	17

'Polychrome' kit.....	17
Nacco Nacolith: (US)	17
Photographer's Formulary Kodalith: (US).....	17
Rollei: (Germany).....	17
'Rollei Lith Developer' *UPDATE September 2012: New formulations	18
(Speedibrews Lithoprint): (from Silverprint, UK).....	18
Footnote Updated October 2012	19
Current and future status:.....	19

The Papers

The various criteria for choosing between the papers that work for lith printing remain as described in more detail in 'The World of Lith Printing'. Below is simply a list of those that do work, together with some of their properties.

Adox Fotoimpex (Berlin) - Agfa Resurrection

Fotoimpex (Berlin) acquired the formulation rights for Agfa's **Multi Contrast Classic (FB)** and **Multi Contrast Premium (RC)** papers along with the emulsion and coating equipment. Do not confuse with Adox Fotowerke Inc. Calgary, Canada – an unrelated company who market film. Adox (Berlin) also market papers from Fotokemika in Croatia.

Adox MCC 110/112

This is an excellent quality FB paper for B&W that also responds to the lith process. My tests of first run samples last year confirmed this; although coating marks were apparent in lith (the lith process may reveal things that are not visible with conventional processing). Since then full production of the paper has been established to critical acclaim. Lith gives cafe-au-lait colours, bright white base, smooth tones, less 'lithy'/gritty than some. I have the final product awaiting fuller testing for lith printing. I haven't tested with 2nd pass lith, but would expect it to be good. The RC version MCP 310/312 is also available but I haven't tested it.

ADOX NUANCE WARMTONE

Fixed grade FB papers on 300g support. Grades 2 & 3. **Care:** Red safelight essential. Both grades lith print, my firm preference being for **Gr.3** (see Fotokemika Emaks). Coarse 'canvassy' looking deep shadows. Good in LD20. If using Arista or Clayton lith developers use higher dilutions for best results.

**Update summer 2012: Sadly, Fotokemika, who made Nuance emulsion, has stopped production of all paper, due to the uneconomic cost of parts replacement on its old coating machine plant. Stock will not be replaced.*

ADOX FINE PRINT VARIOTONE WARMTONE

A more recently developed warmtone paper made in co-operation with Harman Technology/Ilford and Wolfgang Moersch. A variant of Ilford's MGWT but with a bright white base. We know that base pigment can and does often affect 'lithability' and given its lineage I would expect this to be not a truly lithable paper for 'straight' lith processing, but to probably be very promising in 2nd pass lith, i.e. on redevelopment after bleaching. I have yet to sample this brand but Wolfgang informs me that it works nicely with the copper sulphate bleach in my books and high dilution lith developer for the redevelopment.

ADOX' POLYWARMTONE' REVIVAL?

**Update April 09: Return of Polywarmtone?
Adox are also considering the possibility of resurrecting Forte's hugely popular PWT emulsion. This great paper was a major favorite for both regular and Lith printing and it would be very welcome news if it comes about. The original emulsion*

*replicator has been purchased and refurbished. Expressions of interest are being sought and a level of confirmed sales is needed to justify the investment required by Adox. Read more about it and have your say here: <http://www.polywarmton.com>
It won't happen without support.*

***Update March '10:** Plant construction continues and the original PWT kettle has been scaled down and reassembled. Watch the PWT project website for further details

***Update April 2011:** There have been delays with bank negotiations over the last year since the banking crisis but their European grant has now arrived and work is resuming on the factory interior fittings. The project is still 'alive'.

***Update November 2011:** The Polywarmtone Project is still alive but progressing slowly because the soaring price of silver has badly hit their silver products profit which can be re-invested into this programme. But it is still 'live' and the latest news is that building work for the new plant continues slowly, the second floor has just been added, floors laid, on which will sit the resized PWT machine. Following this the cooling cycle and compressed air system will be installed, wiring completed and then the first test run can be made. This is might be expected in December/January at the earliest.

Although slow, this is good news for darkroom workers in general and Lith printers especially. This project needs your support if you want to see the return of PWT. So register your interest now on <http://www.polywarmton.com> (Note – there is no 'e' on the end of polywarmton in this address)

***Update September 2012:** Project still alive and progressing well, if slowly as some sensitizers are proving hard to acquire. Coating is anticipated in the next 6 to 12 months.

? (Bergger) 'post Forte'

Following the demise of Forte the new generation of Bergger paper is not so well suited to lith printing until or unless they add to their range of emulsions. I include the name here in brackets simply to alert you to this change – and to say that they might yield results with 2nd pass lith techniques, and that new products may be added to the range, but these remain to be tested by me.

Foma (Czech Republic)

Update September 2012: Foma have had to find a new source for their gelatin and this has inevitably affected the way that their emulsions behave. Lith printing is particularly sensitive to such things. See below.

Super papers for Lith (**but see* below**) and also for general printing. All papers in range will Lith print to some degree. The best are:

FOMATONE MG

*** But see update below!**

This paper was reputed by some to be the last remaining paper containing cadmium. This is officially denied by Foma and indeed the use of cadmium in photographic emulsions is prohibited by EU regulations, which do apply to the Czech Republic. However, this outstanding paper does have certain similarities often associated with earlier cadmium

containing emulsions and however Foma achieves them they are very welcome. This emulsion has its own very distinctive appearance in lith with the warmest smoothest tonality by far. If that is what you want, a superb range of rich colours is available: Beige, yellows, yellow-orange, peach & salmon pink, orange-browns and colour splits with green blacks on early snatch. The colour is largely controlled by dilution and snatch point. Good response to added potassium bromide and especially selenium toning, with tri-colour splits*. It is available in the following forms:

FOMATONE MG CLASSIC 131 (GLOSSY) & 132 (MATT)

Variable contrast FB paper on a 235g cream tinted base.

**Update September 2012: As mentioned above Foma have had to source a new supplier for gelatin and consequently 131 & 132 in particular have changed in their response to lith developer. Early tests reported a failure to 'lith', but subsequent tests suggested reducing exposure and increasing dilution together with adding extra restrainer. I have not tested this new version yet.*

FOMATONE 532 11 ('NATURE 11')

This is the replacement for 'Nature', which became unavailable when the paper base (same as Art Classic) production was discontinued. Foma have sourced a new base paper and with the same emulsion as 131 above 'Nature 11' is now on an extra heavy base and a lustre sheen finish. Colours on this base may appear slightly more muted.

FOMATONE MG 'CHAMOIS' 532 AND 542

These had the same emulsion as the Classic paper but the base tint is different; the 532 Chamois being rich yellow-cream, the 542 a lighter ivory-cream. Production on this base has ceased but some supplies still exist.

FOMATONE MG 331 AND 332

The same emulsion but in RC form: Glossy and s/matt finishes.

NOTE: This Fomatone emulsion is slow, so be prepared for long exposure times.

FOMABROM VARIANT III; 111 (GLOSSY) & 112 (MATT)

A variable contrast FB paper on a 180g base. Lithable, capable of very cold tones or with yellow-red hues. Contrasty & graphic. Can be tricky to control. Snatch point critical as intense 'lith grain' in the form of widespread emerging black dots develops rapidly. High dilutions and long development give best results (in my opinion). Results improve on drying so suspend judgment until then.

Nov 2009 recent batch variations.

FOMABROM VARIANT IV; 123

This is a variable contrast FB semi-matte/stipple paper with a warmish emulsion on a warm white base. I had various mixed reports re this paper's 'lithability'. and my early tests showed it to be slow in the developer and very gritty, grainy and contrasty, like Variant 111 (surprise!) but high dilutions will try your patience.

It is quite different with bleach/redevelopment however, where lovely soft duotone effects are easily obtainable. This paper has proved popular with some on my workshops.

IMPORTANT NOTE: A standard red safelight is essential. OC safelights or a combination of red and OC safelights may result in fogging. Do a safelight test for your own darkroom.

Forte?

*Polywarmtone might make a comeback with **Adox**. Same emulsion, same machine, same expertise. **See Adox** above to see how to help make this happen. It won't happen without support and commitment from potential users. (Update on this September 2012)*

Fotokemika (Croatia)

**Update summer 2012: Sadly, Fotokemika has stopped production of all film and paper, due to the uneconomic cost of parts replacement on its old coating machine plant. Supplies of Varycon and Emaks will not be replaced when stocks run out.*

VARYCON (KG) VC FB

Discontinued summer 2012. This has its followers in the lith printing community. It produces comparatively large soft clumpy grain in the emerging blacks, with sandy coloured mid and light tones. More colour can be achieved with 2-bath lith techniques &/or by toning.

EMAKS

Discontinued summer 2012. These are graded papers (Gr 2 & 3) on a 300g support with a neutral chlorobromide emulsion suitable for lith printing. They lith satisfactorily in LD20 but with coarse 'canvassy' looking deep shadows. Benefit from high dilutions in the newer Arista Lith and Clayton Lith developers (1+1+28 or more). In my opinion **G.3 performs best.**

K=Fibre,

G=Glossy,

KK=Fibre,pearl,

KM=Fibre,matt

IMPORTANT NOTE: A standard red safelight is essential. OC safelights or a combination of red and OC safelights may result in fogging. Do a safelight test for your own darkroom.

Fotospeed (UK)

FOTOSPEED LITH

This paper is **no longer made**. I have kept its history line below for interest:

The only dedicated Lith paper. As this is non super-coated, it accepts pencil (e.g. for signing) and carries a 'handle with care' warning. I have never experienced surface damage with my prints and only occasionally seen it at group workshops. Its slippery surface also necessitates*

careful handling, especially with larger heavier sheets. Coffee colours. Can be soft & delicate with 'early snatch' higher key prints, or gritty and highly 'textured' in the blacks with later snatch & low key subjects. Pinker (on dry down) with smoother blacks and lower Dmax at much higher dilutions. A good standard and its positive lith response also makes it excellent for learning.

***Update:** I warned in my April 09 newsletter that this paper would soon disappear and to stock up & freeze. It has gone. Stocks are still available and this last batch liths extremely well – better than the previous batch. Worth grabbing it if you find it.

April 2010: Stocks now rare.

NEW FOTOSPEED LITH? (Aug 2009) BUT NOTE – see further update below

A new lithable paper is being sourced from China. My 1st tests show a good lith response with different shadow tone characteristics, very slow paper speed. Further supplies for more extensive testing are awaited. Launch is possibly Sept/October 09.

***Update March 2010:** hitches in negotiations have delayed the introduction of this paper. The future is uncertain at present for a Fotospeed replacement Lith paper, but efforts to find a successor continue.

***Update November 2011:** There is no further news on this project.

FOTOSPEED BROMOIL PAPER

Discontinued, but as a low demand item, stocks may remain. No super-coating. It lith prints easily, giving warm sandy browns.

Freestyle (USA)

Arista is the House name for selected Freestyle branded papers. From the Arista range:

ARISTA.EDU ULTRA RC VC & VC FB

These two papers both lith print satisfactorily with cold tones. As with all very cold tone papers they are grainy and contrasty in lith. They are easier to control with high dilutions and Freestyle's Arista Premium liquid lith seems particularly well suited to cold tone papers.

ARISTA SILVER ARTIST SERIES FINE ART B&W PAPER

NEW APRIL 2012

It is not often that a new lithable product comes onto the market (but see ***Update September 2012 below**) so this new product from Freestyle is likely to attract attention from B&W workers and lith printers alike. Freestyle have created a fusion product with the French-made BFK Rives 100% cotton 280gsm fine art paper and the Croatian Fotokemika's variable contrast 'Varycon' emulsion (see above under Fotokemika for details). At present this is available in 8x10" and 11x14" sizes in both white matte and grey matte finishes. Other base tints and a semi matte surface and further sizes are being explored.

We often do use Varycon paper on my lith workshops and in its usual form it lith prints well (see above under Fotokemika). Coating on art paper is very sympathetic to the Lith process of course, but it can sometimes affect an emulsion's performance characteristics, as those of you who have lithed liquid emulsions will know. I haven't used this new product myself

yet, but I have been informed that Freestyle have had good results with both Lith and bleach-and-redevelopment techniques and so I look forward to testing it for myself.

**Update September 2012: As stated under 'Fotokemika', their emulsions have recently been discontinued. New stocks, coated just before coating was discontinued, arrived at Freestyle this month and are being tested for lith at the time of writing. Previous stocks of white matte have gone, grey is in stock. New supplies this month are 'Platine White' (heavy weight matte), 'BFK Rives cream' (cream semi gloss) and 'Arches Velin Museum Rag Black'. Check stocks and 'lithability' with Freestyle. When they're gone they're gone.*

Fuji (Japan)

FUJIBRO KM2 RC

UPDATED NOV 2011

One of my U.S. workshop students this year came over from Japan and brought this paper with her. She very kindly donated a small supply to me for further testing.

Fujibro is a middleweight graded paper in grades 2 & 3 available only in Japan. It is a fast paper for exposure but extremely slow to develop in Lith so develop 'hot' at 30 - 35C. In Arista Premium liquid lith it gave attractive smooth grainless mushroom tones with cold blacks on a very white base. Dries very flat and may give a little fine pepper fogging as the developer becomes used.

Fuji Rembrandt was also tested but did not lith.

Iford Photo (UK)

(ILFORD MULTIGRADE WARMTONE)

Although not my ideal for Lith printing, it will respond to dilute lith developer and I know those who really like its somewhat different look, especially with higher contrast negatives. It has less interesting (or perhaps more subtle, depending on your viewpoint) results than the others listed here but yields an ivory colour with rather more grudging infectious development. Better in hot lith developer or with added bromide. Recent batches appear to have a whiter base and are trickier to lith.

It does however deserve special mention for 2nd pass lith - redevelopment in lith, after bleaching a conventionally processed print. Pulled at the right moment it gives a delicate blend of soft warm browns and cool greys.

Iford have been looking at the possibility of producing a new lithable VC paper too for a while now. Their new paper below is not really ideal for lith, although a beautiful paper in the textured 'art paper' genre. I will give news in my newsletters of any other developments if there are any.

NEW ILFORD 'LITHABLE PAPER'

***Update July 09:** Ilford Photo, Harman announced it will 'reverse engineer' a new fine art paper ideal for Lith printing!

Consultations have taken place with printers and educators as to their desired properties. Production date unknown. Potentially great news.

***Update March '10:** The project is apparently still active & progressing. Watch this space. I will bring news when available.

***Update November 2011: Launched. See below – Ilford Multigrade Art 300**

(ILFORD MULTIGRADE ART 300) APRIL 2011 (DATA UPDATED OCTOBER 2012)

Ilford launched its much-awaited new paper in March 2011 – its first new paper in 13 years. From this month (April 2011) it is available in the UK in all sizes and should be in the USA in May 2011.

This paper is not quite the emulsion that Ilford began this project working towards hence the parentheses around the name above to indicate some initial reservations about 'lithability' (but read on). However it is a beautiful paper and the more I use it the more I love it, especially for large prints where the texture and weight are particularly well suited. The emulsion is in fact a warm tone emulsion based on and similar to MGWT. The emulsion is coated on a new heavy weight 300gsm fibre paper made for it by Hahnemuehle. It has a fine grain texture and a semi matt surface with a very slight sheen to enhance the Dmax, which is excellent for a matt or semi-matt art paper. The texture makes it most suitable to 'art' style images.

In terms of *straight* lith development, it does produce a print in typical lith colours, but it doesn't exhibit the usual fully convincing infectious development. This means the blacks are not so easily controlled separately by development and tend to be rather weak when snatched early – a sort of antique look, which suits nostalgic images and also more subtle images where a rich black is not required. Control is achieved by exposure and filtration. However, for lower key subjects, where the blacks can be allowed more time as the dominant tone, the results can be very attractive indeed with appropriately rich blacks.

Multigrade ART 300 can be very beautiful for 'second pass' lith – bleach and lith redevelopment of a black and white print. This way the blacks can easily be preserved by stopping the bleach before they disappear. Redevelopment in lith (in room light) then produces lovely warm beige lith prints with rich cold blacks and with careful timing cold grey highlights can be obtained if desired. As always, the choice of first developer will affect the results.

Response to direct toners can be somewhat restrained, both with conventional development and, unusually, with lith. Weak selenium can be used to enhance Dmax with little or no colour shift **but** if used really strong, selenium at 1:5 or more gives rich chocolate browns, particularly with the Harman toner. Bleach based toners work extremely well, as expected.

Kentmere (UK)

**Update Aug 2009: Kentona, Finegrain semi-matte VC FB base has been discontinued.*

It is now common knowledge that the Kentmere company was bought in 2007 by Harman Technology (Ilford Photo). Following the acquisition Kentmere's coating plant was closed down and future Kentmere darkroom papers will be made on the more sophisticated Ilford coating plant. These products will therefore inevitably be different. How different and whether they will lith print remains to be seen. Plans are also afoot to develop and bring to market new products to fill the gaps left by the demise of the likes of Art Classic, or Forte's Polywarmtone – a VC Art Classic perhaps? No firm news at this stage, but cautious optimism might be in order (***sadly now unlikely, see footnote*). In the meantime, significant quantities of existing Kentmere papers were made in anticipation of the move. Those of most interest to the lith printer now are:

KENTMERE KENTONA

Fixed Grade. Glossy. Lith prints easily and well. Blacks may have comparatively unobtrusive fine grained texture, smooth mid and high tones. Shifts toward salmon pink (after drydown) at higher dilutions.

**April 09: Now discontinued*

KENTMERE FINEPRINT VC FINEGRAIN WARMTONE.

Variable contrast, using Kentmere's unique bromo-iodide technology. Lith prints to pleasing yellow-brown hues with cold blacks that exhibit gritty grain and texture.

Note: Another Kentmere paper, Fineprint VC, shares the same emulsion as Fineprint VC Warmtone, but on a bright white glossy paper. However, it does not lith print. The surprising thing, given the emulsion recipe, is not that it doesn't lith print, but rather that the warm tone version does. This is thought to be because of some effect from the warmtone pigment used, which is mixed into the emulsion rather than onto the paper. The cold version Fineprint VC does however respond well to bleach and lith redevelopment after first processing in 'normal' developer ('2nd Pass Lith').

**Jan 09: The paper base surface of Fine grain Semi-Matte VC FB was discontinued so the Fineprint VC FB and Warmtone papers will be changing in the future as well. I don't know what the new paper will be like exactly.*

The old favourites **Document Art** and **Art Classic** have been discontinued. Their once hoped-for replacements have for now been abandoned. (Details of which can be traced in the TWOLP news archive threads).

Oriental Seagull (Japan)

***Updated Nov 2011:**

Oriental Seagull papers have gone through many iterations over the years and their later papers have been made elsewhere. Whilst the early Oriental warmtone paper was a wonderful lith printing substitute when Kodalith paper was discontinued in the early '80s, many of their later papers have not been lith friendly.

However, this has now changed (2011)!

NEW: ORIENTAL WARMTONE VC FB11 (NEW WARMER EMULSION FORMULATION 2011)

Be careful to buy the new warmer tone version of this paper and you will be rewarded with a beautiful paper that lith prints wonderfully. A variable contrast warmtone double weight paper with a smooth gloss surface and a subtle cream base. It liths with conviction with well separated cold blacks on warm mid-upper tones when using relatively stronger developer and responds strikingly to higher dilutions by yielding much warmer images. It tones well in direct toners and can give 2 or 3 colour splits in selenium (depending on processing)

The resemblance this paper has to the Fomatone emulsion is unmistakable! Although I haven't tested the two to death side by side, we used several hundred sheets of each in a less strictly controlled fashion on my Montana workshops this year and as the saying goes 'if it looks like a duck, walks like a duck and quakes lith a duck – it's probably a duck!' If there are any differences between the two they are not immediately obvious with random use. Strict controlled testing is on my to-do list. At present this paper is cheaper than Fomatone.

***Update September 2012: See [emulsion changes under 'Foma MG'](#) above.**

Rollei (Germany)

Negotiations concerning the new range of Rollei papers listed in TWOLP did not progress entirely as originally planned and reported in earlier versions of this booklet.

However Maco, who own the Rollei brand, launched 8 Foma emulsion papers under the 'Rollei Vintage' label. Foma emulsions are detailed elsewhere in this list and the warmtone version is especially suitable for lith printing & toning.

This range is a permutation of fibre based, resin coated, premium weight, standard weight, warm tone and neutral tone, glossy and matt papers.

They are also labeled to match the Foma coding as follows:

- Vintage 311: fb; vc; warmtone emulsion; premium weight; cream; glossy
- Vintage 312: fb; vc; warmtone emulsion; premium weight; cream; matte
- Vintage 331: rc; vc; warmtone emulsion; standard weight; cream; glossy
- Vintage 332: rc; vc; warmtone emulsion; standard weight; cream; matte
- Vintage 111: fb; vc; neutraltone emulsion; premium weight; white; glossy

- Vintage 112: fb; vc; neutraltone emulsion; premium weight; white; matte
- Vintage 311: rc; vc; neutraltone emulsion; premium weight; white; glossy
- Vintage 312: rc; vc; neutraltone emulsion; premium weight; white; matte

**October 2009: Additional papers are being added to this range in October. Details on the website at http://macodirect.de/paper-rollei-c-1_17_185.html*

Also Maco have a direct selling service online. Particularly useful to those living in areas where distributors carry a limited (or zero!) range. They now have a large direct sales market in Australia as products are otherwise scarce locally and shipping costs to Australia have now reduced by some 25%

**Update September 2012: See [emulsion changes under 'Foma MG'](#) above.*

Slavich (Russia)

UNIBROM

A cold-tone, fibre-based silver bromide emulsion, available in both single-weight (150 microns) and double-weight (250 microns) base thickness and available in Glossy & Matte surfaces, Grades 2, 3 and 4.

By far the most graphic and the coldest of all lithable papers with a look all of its own. This paper with average strength lith processing gives very high contrast images almost like charcoal drawings. It can be the trickiest paper to control as it is prone to accelerating infectious development around the edges and often random spots and patches. This is much less in Maco Superlith* (now Rollei Vintage Creative developer), Arista Liquid Lith* and Clayton Lith developers, which are therefore the developers of choice with Slavich, especially in higher dilutions. Smoother tones may be obtained with redevelopment after bleaching and copper sulphate bleach (see my books) can be particularly useful.

**Update October 09: NOTE: Arista liquid lith and Rollei Vintage Creative lith have both changed. See below under Developers.*

The Developers

Fotospeed LD 20: (UK)

2 x 500ml and 5L A&B kits. Very effective for Lith printing, the smaller packs are popular with low volume users. In use this developer is 'identical' to Champion Novolith (now withdrawn) in every way. Instructions are for use specifically with Lith printing. Since pepper fogging has largely disappeared from current papers, except in the mildest of forms, these Fotospeed packs no longer contain supplementary anti pepper fog additives.

****Update Nov 2009:** Full production of LD20/Novolith is now moving in-house at Fotospeed, so recent shortages should be resolved by Jan 2010*

****Update Feb. 2010:** Production well under way and 1st batches out for testing prior to sending to market. US supplies should arrive a little later around May.*

Freestyle Arista Liquid Lith: (USA)

Various sizes. In my limited experience this developer is better suited to lith printing than the pre-2007 version. It works particularly well in higher dilutions (from 1+1+28).

ARISTA PREMIUM LIQUID LITH A + B

****Update April '09:** Arista Lith (liquid) has been discontinued and replaced with **Arista Premium Liquid Lith A & B**. This is made by another manufacturer and tests at Freestyle are reported to be very good at (1+24) + (1+24). It apparently works faster than the previous version. I have not yet used this new product. Arista powder lith developer is a different product and formulation and remains unchanged.*

****Update November '11:** We had the opportunity to use this new liquid version extensively over a month of workshops in the US this year (2011) with considerable success. My impression is that it is warmer toned and also well suited to the more difficult cold tone papers. It is also a fraction of the price of other products.*

Maco LP-Superlith: (Germany)

This product has been transferred to the Rollei label and recently changed (see 'Rollei' below).

Moersch: (Germany)

An extensive range of Lith printing kits based on formaldehyde-free lith developers. All have detailed Lith printing instructions:

'EASY LITH'

This is made with inexperienced lith printers in mind; a higher bromide (a restrainer) level facilitates easy assessment and convincing infectious development for a strong lith effect.

'SE 5 MASTER SET'

Intended for the more experienced user: 2 additional additives C and D are included, based on potassium bromide and sodium sulphite (see 'additives').

ADDITIONAL ADDITIVES

D, extra strong potassium bromide, **E**, for increasing grain at the expense of colour.

****October 2009: Additive F discontinued.***

*Addition of **additive Ω**. This is a second bath treatment to oxidize residual developer in the paper and intensify the colour. Contains ammonium carbonate, like one of the additives in Polychrome.*

'POLYCHROME' KIT

This might be described as a 'hybrid' lith kit for creating colourful image tones with greater or lesser Lith effect. The kit consists of the lith and 'siena' developers as well as several additives which are used to control the final image colour. Described in 'The World Of Lith Printing' under Two-bath lith processes.

Nacco Naccolith: (US)

This comes in a variety of sizes. In my limited experience (**see note*) of it (not available in the UK), this developer easily produces warm brown Lith prints, but may be more suited to those who like brown prints with less extreme 'lithy' properties.

****Update:** I have since seen a number of excellent lith prints on various papers from this developer. They have a slightly different look but clearly good results are achievable.*

Photographer's Formulary Kodalith: (US)

Different to the discontinued Kodalith products, this is similar to the Ansco 70 formula listed below. It is probably better suited to film development (its intended purpose) than Lith printing.

Rollei: (Germany)

***NEW FORMULATIONS FOR 2012:**

Originally, Maco LP-Superlith developer was renamed **Rollei Vintage Creative developer**. **This product changed in 2009 and now again in 2012 (see 2009 update below).**

****October 2009:** Rollei Vintage Creative (lith) developer has now been **changed**. Previously manufactured for Maco by Champion, this developer is now made by Clayton in California. Users of the previous version of Freestyle's Arista Liquid Lith (see above) will know this developer (although I think that some changes in the formulation may have occurred in the Rollei version*

as users report a reduced and less colourful lith result. The Arista/Clayton lith worked well in high dilutions and is particularly well suited to Slavich Unibrom. SEE BELOW - new products.

****UPDATE SEPTEMBER 2012: NEW FORMULATIONS***

'ROLLEI LITH DEVELOPER'

Now formulated for Maco by Compard instead of Clayton (which proved unpopular with many lith printers), I am told this should have an action similar to Moersch's Easyolith, but I have not tried it yet and would welcome feedback.

'ROLLEI SUPERLITH A+B DEVELOPER'

A stronger concentrate, this one is now made for Maco's Rollei label by Moersch, and is said to be similar to his popular SE5, so should satisfy all lith printers!

(Speedibrews Lithoprint): (from Silverprint, UK)

I have included this in parentheses, as it is not a true Lith developer. Originally formulated to circumvent the problem of pepper fogging with the old Sterling lith paper, it is a 2-part powder kit to make single solution concentrate for dilution and it requires a different technique: As there is no infectious development rush, the highlights need to be watched approaching the snatch point. It can produce very colourful toner-responsive prints with some papers. Being essentially a super-warm working developer, blacks can be a little 'soft' at high dilutions for maximum colour, but the 2-bath technique described in The World of Lith Printing book will get around this easily and effectively if required.

Footnote

Current and future status:

October 2012

Products will inevitably continue to change. The last few years have seen many comings and goings and I have always striven to emphasize the positive changes as they can easily get overshadowed by the negative ones.

However, at the time of writing we are witnessing the lowest ever point in lith product availability, although there are still a few indicators that this might yet improve slightly.

- Supplies of Fotospeed Lith paper and most supplies of the lithable Kentmere papers have gone and will not be replaced.
- Varycon and Emaks papers from Fotokemika (Croatia) have been discontinued this summer (2012) but supplies are still available in some places. They will not be replaced.
- Freestyle's Silver Artist series, which was launched only this year, will cease to be available when current stock runs out. A fresh coating shortly before the Fotokemika plant closed should ensure some products for a while. See 2012 Update on P. 9-10.
- The change in Fomatone is a big blow to lith printers.
- The NEW Oriental VC-FB11 warmer tone warmtone emulsion now available is/was a beautiful paper **but** will also be affected by Foma's problems.
- The Polywarmtone project has been delayed for a long time now, but is still alive. Perhaps the loss of Fotokemika and the change in Foma will stimulate faster progress. Forte's original PWT was a beautiful paper for lith printing. The more people who register interest, the more likely it is to become an earlier reality.

So where do we go from here? This might be the market opening for the Adox PWT revival that is needed, but I foresee an upswing in the practice of what I call '**Second Pass Lith**', or the bleach and lith redevelopment of a black and white print - which is a bit more of a mouthful.

I have explored and expounded this process since the early '90's, long before I wrote the first book on lith printing, and it is still much under-valued as a process. It is a slightly lengthier process, but not more so than simple sepia toning for example. It opens up the field to a host of otherwise non-lithable papers with interesting and sometimes quite different results. Some lovely colours are obtainable with some papers too, but the toning response is often more subdued.

I will add further news if and when I get it.

I hope to be able to provide updates on these and other products to everyone registered with my mailing list at my website www.timrudman.com