



ADDITIVES FOR RADIATION CURING



UV Product Range


Overview

KROMACHEM has been involved in the rapidly growing market of UV/EB curing for more than 50 years, supplying an increasing range of speciality additives, to keep up with the continuous demand of the dynamic coatings industry. **KROMACHEM** is the innovator of the internationally leading range of in-can thermal stabilisers, *FLORSTAB UV*. As a global business, **KROMACHEM** has strategic sales offices and warehouses in several international locations, and we have technical sales personnel responsible for regions across the globe.

At our R&D site in Greater Manchester, our technical experts are constantly updating and expanding our energy curable ranges, suitable for the paint, printing inks, coatings, rubber and plastics industries. Our team also specialises in creating **bespoke** products to suit customer's systems, applications and other requirements. Contact our technical team to discuss your specific needs.

KROMACHEM isn't limited to energy curing products. **KROMACHEM** manufacture specialty water-based pigment dispersions and has extensive portfolios of matting silicas, pearlescent effect pigments and high-performance pigments.

KROMACHEM exhibit at a number of the major global coatings trade shows; visit our website www.kromachem.com to find out which upcoming exhibitions you can find us at.

KROMACHEM is proud to be a member of RadTech Europe.  **RT_E RADTECH EUROPE**

Technical information is available for each product at technical@kromachem.com

Commercial information is available at info@kromachem.com

Regulatory information is available at regulatory@kromachem.com

Safety Data Sheets are available at msds@kromachem.com



CONTENTS

| | |
|--------------------------------|---|
| RAD-ADDITIVE APPLICATION GUIDE | 3 |
| <hr/> | |
| FLORSTAB UV STABILISERS | 4 |
| <hr/> | |
| RAD-COLOR UV L3 PIGMENT PASTES | 5 |
| <hr/> | |
| RAD-WAX | 6 |
| <hr/> | |
| RAD-ACTIVE | 7 |
| <hr/> | |
| OTHER KROMACHEM PRODUCTS | 8 |
| <hr/> | |
| DISTRIBUTED BY KROMACHEM | 9 |
| <hr/> | |



RAD-ADDITIVE APPLICATION GUIDE

| Printing Inks | | | | |
|----------------------|---|---|--|----------------------------------|
| Feature | Litho | Flexo | Screen | Inkjet |
| Defoaming | - | Rad-Active AF | Rad-Active AF | Rad-Active AF |
| Levelling | - | Rad-Active SF | Rad-Active 40, Rad-Active SF | Rad-Active DOD |
| Pigmentation | - | Rad-Color UV L3 | - | - |
| Rub Resistance | Rad-Wax | Rad-Wax | Rad-Wax | - |
| Stability | Florstab UV-1 UV-2 UV-12 UV-25 UV-2 LEO-1 UV-33 UV-34 UV-37 | Florstab UV-1 UV-2 UV-8 UV-25 UV-26 LEO-1 UV-33 UV-34 UV-37 | Florstab UV-1 UV-2 UV-5 UV-8 | Florstab UV-8 UV-12 LEO-1 |
| Stability - Metallic | Florstab UV-11 UV-12 | Florstab UV-11 UV-12 | Florstab UV-11 UV-12 | Florstab UV-12 LEO-1 |
| Wetting | - | Rad-Active SF | Rad-Active SF, Rad-Active 40 | Rad-Active DOD |
| Slip / Anti-Blocking | Rad-Active CO, Rad-Active CO3 | Rad-Wax, Rad-Active CO, Rad-Active CO3 | Rad-Wax, Rad-Active CO, Rad-Active CO3 | Rad-Active CO, Rad-Active CO3 |

| Feature | Wood Coatings | | Over Print Varnishes | Industrial Coatings |
|----------------------|---------------------------------|---|--|--|
| | UV Clear Systems | UV Pigmented Systems | | |
| Anti-Craters | Rad-Active 40 | Rad-Active 40 | Rad-Active 40 | Rad-Active 40 |
| Defoaming | Rad-Active AF | Rad-Active AF | Rad-Active AF | Rad-Active AF |
| Pigmentation | - | Rad-Color UV L3 | - | Rad-Color UV L3 |
| Rub Resistance | - | Rad-Wax | Rad-Wax | Rad-Wax |
| Stability | Florstab UV-2 UV-5 UV-8 | Florstab UV-1 UV-2 UV-25 UV-26 UV-8 UV-11 UV-12 LEO-1 UV-33 UV-34 UV-37 | Florstab UV-5 UV-8 LEO-1 | Florstab UV-5 UV-8 UV-12 |
| Wetting | Rad-Active SF, Rad-Active 40 | Rad-Active SF, Rad-Active 40 | Rad-Active SF, Rad-Active 40 | Rad-Active SF, Rad-Active 40 |
| Slip / Anti-Blocking | - | Rad-Wax | Rad-Wax, Rad-Active CO, Rad-Active CO3 | Rad-Wax, Rad-Active CO, Rad-Active CO3 |

Contact Kromachem at info@kromachem.com for further information, detailed product technical datasheets, and the recommendations for use for each product.



FLORSTAB UV STABILISERS

In-can Stabilisers for UV Inks and Coatings

Florstab UV is our unique range of in-can stabilisers for free radical UV curing inks and coatings. They are specially formulated to have exceptional activity while having no or minimal effect on cure.

Features

- Excellent performance with organic pigments, UV resins and photoinitiators
- Available for use in clear, white, pastel and dark toned inks and coatings
- No or minimal reduction in cure or cure speed
- Enhanced stability with metallic pigments
- Protection against polymerisation during manufacture, storage and use
- Excellent stability with high pigment loadings
- Anti-skinning and anti-gelation
- Options for Nestle / Swiss & German Ordinance Compliance
- Pre or post dispersion addition

| PIGMENTED SYSTEMS | WHITE SYSTEMS | CLEAR SYSTEMS |
|-------------------|----------------|---------------------|
| Florstab UV-1 | Florstab UV-2 | Florstab UV-5 |
| Florstab UV-11 | Florstab UV-26 | Florstab UV-8 |
| Florstab UV-25 | Florstab UV-37 | Florstab UV-12 |
| Florstab UV-33 | | Florstab UV-39 |
| Florstab UV-34 | | Florstab KHL-ES2304 |
| Florstab UV-38 | | Florstab KHL-ES2306 |
| | | Florstab KHL-ES2402 |
| | | Florstab KHL-ES2502 |
| | | Florstab KHL-ES2504 |



**FLORSTAB UV STABILISERS
CAN BE TAILOR MADE TO
CUSTOMER'S REQUIREMENTS.**



RAD-COLOR UV L3 PIGMENT PASTES

Pigment Pastes for UV-Ink and Coating Systems

Rad-Color UV L3 pigment pastes are a range of pre-dispersed and stabilised pigment preparations designed for use in UV flexo inks, UV screen inks and UV coatings. Kromachem use specially modified bead mills to obtain optimum dispersion of the pigment. Rad-Color UV L3 pastes have been expertly formulated by our in-house technical specialists with over 20 years' experience, to provide a combination of optimum flow and colour strength.

Features

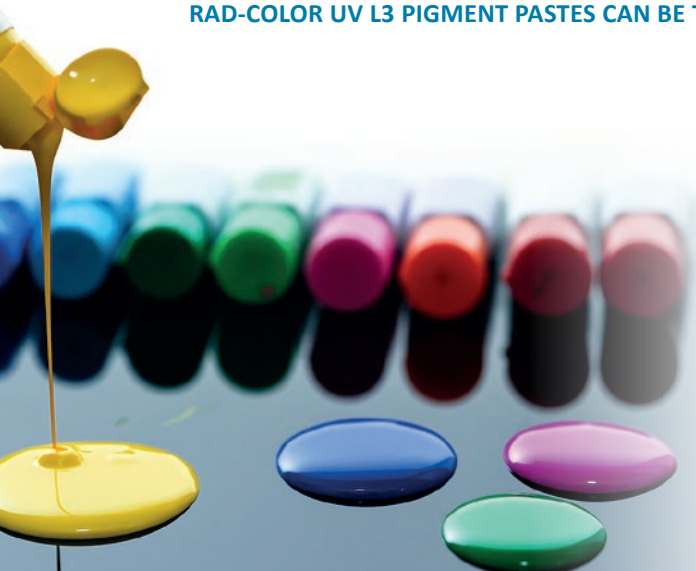
- High pigment loading
- Excellent flow
- Compatibility with most energy curable systems
- Excellent stability
- Wide colour range
- Easy to handle, with the dust nuisance associated with the use of dry pigments completely eliminated
- Multiple 4-colour process sets (a range of shade and opacity choices for each colour index)
- Wide range of oligomer and monomer options
- A full range of Rad-Color UV L3 pastes for spot colours
- High lightfast, high resistant colours for inks and industrial coatings
- Dense black and high opacity white
- Colour matching is available
- Options for Nestle / Swiss & German Ordinance Compliance
- No need for milling/dispersion

Recommendations for use

Rad-Color UV L3 pigment pastes are ready to be blended with photoinitiators and other components to make inks/coatings. Rad-Color UV L3 pigment pastes can be used on their own or blended to reach the desired shade. Flexo and rotary screen inks made from Rad-Color UV L3 pastes provide high colour density combined with exceptional flow making them very suitable for high speed process printing.

The Kromachem range of UV Additives are all stir-in and fully compatible with Rad-Color UV L3 pastes.

RAD-COLOR UV L3 PIGMENT PASTES CAN BE TAILOR MADE TO CUSTOMER'S REQUIREMENTS.





RAD-WAX

Silicone Free Wax Compounds for UV-Applications

KROMACHEM has supplied micronized wax dispersions for more than 35 years. We offer a comprehensive range of RAD-WAX products to the energy curable market.

Features

RAD-WAX products are fine dispersions of silicone free micronised waxes in UV compatible media. RAD-WAX products are easy to incorporate, eliminating in-house predispersions and associated dust hazards. RAD-WAX products provide slip, lubricity, anti-blocking, mar and rub resistance properties. RAD-WAX can be regarded as being free from PTFE and PFAS.

Recommendations for use

RAD-WAX products can be used in UV-inks and coatings, either free radical or cationic systems, for UV-wood finishes and over print varnishes. Addition levels start as low as 0.2% depending on the desired properties.

Properties

| GRADE | TYPE | WAX Solids | WAX MP °C | EFFECT |
|---------------|-------------------------------------|------------|-----------|---|
| RAD-WAX 22 | Fischer Tropsch | 40% | 110-115 | Optimum Slip |
| RAD-WAX 65 | Polyethylene (PE) | 30% | 120-124 | Optimum Rub Resistance |
| RAD-WAX 28-30 | Fischer Tropsch/ Aluminium Oxide | 30% | 114-118 | Optimum Scratch, Scuff, Mar Resistance |
| Rad-Wax 292 | HDPE/EBS/ Aluminium Oxide | 27% | 139-145 | Optimum Scratch Resistance, Anti-Blocking |
| RAD-WAX 61-31 | HDPE/Aluminium Oxide | 31% | 110-116 | Optimum Scratch and Scuff Resistance |

RAD-WAX PRODUCTS CAN BE TAILOR MADE TO CUSTOMER'S REQUIREMENTS.



RAD-ACTIVE

Additives for UV and Solvent Based inks and coatings


KROMACHEM offers a range of stir-in additives for free-radical curing inks and coatings. The range is constantly being expanded and improved, and includes flow and levelling agents, defoamers and wetting agents.

| PRODUCT | FEATURES |
|--|---|
| RAD-ACTIVE 40 Silicone Flow and Levelling Agent | A unique combination of silicone oils selected to provide balanced flow, levelling and wetting of UV cured screen inks and coatings. RAD-ACTIVE 40 can also be used to improve the tape test. |
| RAD-ACTIVE AF UV-Antifoam / Defoamers for UV-Inks and Coatings | A product line of antifoams and defoamers designed for use in UV and water based UV systems. |
| RAD-ACTIVE CO Silicone-Free Slip and Release Additive | Designed to provide surface slip and release characteristics in UV varnishes & coatings where silicone additives are unacceptable. Also available with greater regulatory compliance as Rad-Active CO3. |
| RAD-ACTIVE DOD Silicone-Free UV Inkjet Additive | RAD-ACTIVE DOD is a universal silicone-free continuous inkjet (CIJ) and drop on demand (DOD) additive for UV-free radical curing digital ink systems. |
| RAD-ACTIVE SB-01 Silicone-Free Solvent-Borne Inkjet Additive | RAD-ACTIVE SB-01 is a universal silicone free continuous ink jet (CIJ) and drop on demand (DOD) additive for solvent, UV free radical and cationic digital ink systems. |
| RAD-ACTIVE SF Silicone-Free Wetting Agent | RAD-ACTIVE SF is a silicone-free polymeric wetting additive for UV-screen, UV-flexo inks and coatings. Anti-cratering, fisheye, wetting agent. Recoatable, foil-blockable. |



OTHER KROMACHEM PRODUCTS

KROMACHEM also offers extensive portfolios of water-based pigment concentrates, matting silicas, high-performance pigments and pearlescent effect pigments.

| KROMACHEM PRODUCT | DESCRIPTION |
|--|--|
| KROMACRYL and MICROTINT Water Based Pigment Dispersions | Wide range of aqueous colourants for paper colouration, latex rubber, timber stains, industrial coatings and flexo printing. This includes a comprehensive range of FDA conforming products. |
| Matt XP Matting Silica Range Download Brochure here | Precipitated and gel type silicas in a range of particle and pore sizes, with coated and uncoated grades available. Exhibiting excellent matting efficiency, transparency and low viscosity impact. |
| KROMAPEARL Pearlescent Effect Pigment Download Brochure here | Complete portfolio of high performance pearlescent pigments offering unique and eye-catching effects for printed and coated materials and plastics. Suitable for water-based, solvent-based and UV-curing systems. |
| MICROFAST HP High Performance Pigment  | High performance pigments offering exceptional lightfastness and chemical resistance, high thermal stability and outstanding colour strength. |

For full details visit www.kromachem.com for our product brochures or contact us at info@kromachem.com



DISTRIBUTED BY KROMACHEM

KROMACHEM distributes the following in Europe:



SPECIALTY WAX ADDITIVES AND FINE POWDERS



PATCOTE® and SUPPRESSOR DEFOAMERS



INORGANIC PIGMENTS



MAGNETIC & HIGH PURITY IRON OXIDES



KROMACHEM LTD

www.kromachem.com

Kromachem Ltd

Unit 10, Moor Park Industrial Centre
Tolpits Lane, Watford, WD18 9ER
Tel: +44 (0)1923 223368

Kromachem GmbH

Furstenbergstrasse 17
Leverkusen, D-51379
Phone +49 (0)2171 723220

Kromachem Inc

c/o RRBB,
265 Davidson Avenue Suite 210
Somerset, NJ 08873 4120
Phone +1 (732) 7510980

Email info@kromachem.com to find out who your local representative is.

Head office, located in Watford, is certificated to ISO 9001:2015 and 14001:2015



Disclaimer

The information contained herein is to the best of our knowledge true and accurate and any suggestions are made without guarantee, express or implied, since the conditions of use are beyond our control. This also applies where proprietary rights of third parties are involved.

The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Customers are reminded to test product in their formulations/applications in each case and in particular in the case of stabilisers to test in a best- and worst-case scenario. Our advice, whether verbal or written, does not release you from the obligation to verify the information currently provided – especially that contained in our safety data and technical information sheets.

Nothing contained herein shall be construed as a recommendation to infringe on any existing patents covering any material or its use.