

Inkjet
—
Product
guide

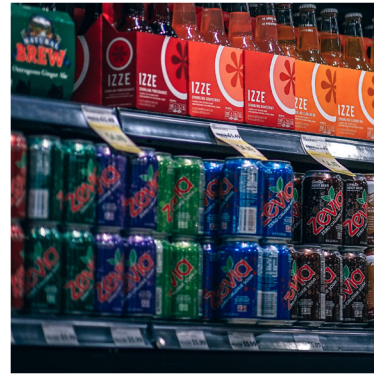


We bring it all together.



Inkjet

Product guide resin



UV/EB RAW MATERIAL AND TECHNICAL SOLUTION PROVIDER

IGM Resins is the leading global provider of UV/EB curing raw material solutions to a wide variety of industries such as graphic arts, industrial coatings, adhesives and 3D printing. The combination of our global presence, unique market driven and customer focused approach, technical and regulatory support and our comprehensive portfolio of products covering photoinitiators, Energy Curing Resins and additives, is the cornerstone of our success. We offer worldwide technical application support, product development and customized solutions.

IGM is 100% dedicated to the energy curing coatings industry and we are

investing to grow with it.

We are expanding our capabilities in R&D, product development and manufacturing to better serve our customers and partner with them in developing next generation photoinitiators and other UV materials.

HOW TO GET MORE FROM US

UV curable inkjet printing is a rapidly growing application. Compared to conventional printing and imaging technologies, its advantages include relatively low hardware cost, full color high resolution image quality that is suitability for low-cost short-run digital and on-demand printing, and the ability to print marking and coding on three-dimensional objects.



UV curable inkjet inks are formulated as 100% solids or water-based. In both cases, viscosity should be precisely controlled as printing head must permit inks to be forced through very small nozzles. Typical viscosity for UV inkjet is 6 to 12 mPa.s and print head can be heated up to 70°C to allow the use of technical oligomers.

MAIN ADVANTAGES OF UV INKJET PRINTING ARE:

- Instant curing allowing further processing with no risk of drying inks in the print head,
- High layer thickness gives the option to provide texture,
- Available for a wide range of substrates (paper, plastic, glass, metal, etc.),
- Very good chemical and mechanical properties of the inks,

- High quality appearance: gloss or matt finish,
- Solvent free formulation is possible,
- LED curing for reduction of energy consumption, sensitive substrates,
- Excellent color values: UV inks are generally transparent, the final color gamut is very good.

To meet these challenging requirements, IGM Resins offers different solutions. In this leaflet you will find information about our products portfolio.

For more details, contact your local sales representative or send us an email to sales@igmresins.com for Europe and Asia and ussales@igmresins.com for America.

	Chemical Identity	Functionality	Viscosity mPa.s at 25°C	Sensitive application	Low shrinkage	Product attributes	EU Reach *	USA TSCA *	China IECSC *	Japan ENCS *
Photomer 4012	IBOA	1	10			Solvency, adhesion, good flexibility		•	•	•
Photomer 4035	PEA	1	10			Good hardness, good solvency, excellent adhesion, High refractive Index		•	•	•
Photomer 4039	P4EOA	1	30			Flexible, low odour, adhesion		•	•	•
Photomer 4141	CTFA	1	15	•		Adhesion, coating hardness, chemical resistance	•	•	•	
Photomer 4142	THFA	1	8			Adhesion, chemical resistance, good weatherability	•	•	•	
Photomer 4184		1	35			Flexibility, High elongation, adhesion	•	•	•	•
Photomer 4211	EOEOEA	1	6			Adhesion, solvency, high flexibility	•	•	•	•
Photomer 4808	ODA	1	6			Hydrophobic, good wetting properties, good flexibility, good adhesion		•	•	•
Photomer 4810	IDA	1	6	•		Flexibility, hydrophobic, pigment wetting, substrate wetting, High refractive Index	•	•	•	•
Photomer 4812	LA	1	7	•		Flexibility, hydrophobic, good adhesion, high renewable content	•	•	•	•
Photomer 4017	HDDA	2	8	•		Adhesion, chemical resistance, high solvency & cutting power, High refractive Index	•	•	•	•
Photomer 4054	PEG400DA	2	50			Flexibility, water dispersible, low volatility	•		•	•
Photomer 4061	TPGDA	2	13			Versatile, good flexibility and high reactivity	•	•	•	•
Photomer 4071	MPDDA	2	8.5	•		Low odour, adhesion, high solvency & cutting power	•	S	•	•
Photomer 4127	NPGPODA	2	15	•		Pigment wetting, flow & leveling, low surface tension	•	•	•	•
Photomer 4226	DPGDA	2	10			Pigment wetting, high reactivity, high solvency & cutting power	•	•	•	•
Photomer 4361	HD2EODA	2	15	•		Pigment wetting, flow & leveling, low irritancy		•		•
Photomer 4362	HD2PODA	2	15	•		Pigment wetting, flow & leveling, low irritancy		•	•	
Photomer 4006	TMPTA	3	100			High reactivity, coating hardness, chemical resistance	•	•	•	•
Photomer 4094	GPTA	3	85	•		Pigment wetting, flexibility, impact resistance	•	•	•	
Photomer 4149	TMP3EOTA	3	63	•		High reactivity, coating hardness, tensile strength	•	•	•	

*: For further registration information, please contact your local sales representative
S: SNUR for this product

	Chemical Identity	Functionality	Viscosity mPa.s at 25°C	Sensitive application	Low shrinkage	Product attributes	EU Reach *	USA TSCA *	China IECSC *	Japan ENCS *
--	-------------------	---------------	-------------------------	-----------------------	---------------	--------------------	------------	------------	---------------	--------------

PROPERTIES ENHANCER

Photomer 8061	TPGMEA	1	7			Low surface tension, superior substrate wetting, flow and levelling agent, good solvency		•	•	
Photomer 4158	TMP15EOTA	3	170	•		Flexibility, impact resistance, abrasion resistance, water dispersible	•	•	•	
Photomer 5429	Polyester acrylate	4	400	•		Tensile strength, cure speed, adhesion	•	•	•	
Photomer 5500	Hyper branched PEA	12-15	500	•		High Functionality, Low viscosity, Fast Cure	•	•		
Photomer 4306	DiTMPTA	4	550			High reactivity	•	•	•	
Photomer 4028	BP4EODA	2	1000	•		Gloss, low skin irritaton, High refractive Index	•	•	•	•
Photomer 5050	Multi Functional Acrylate	6	2500	•		Fast cure, high functionality, good mechanical resistance	•			
Photomer 4666	DPHA	6	5500	•		High reactivity, hardness and scratch resistant	•	•		
Photomer 5450	Fatty acid modified PE	6	6000			Fast curing, pigment wetting	•	•		
Photomer 6891	Aliphatic PUA	2	8000			Adhesion, non-yellowing, 3D Printing Inkjet	•	•	•	•
Photomer 6210	Aliphatic PUA	2	12000	•		Scratch resistance, flexibility, impact resistance, adhesion, non yellowing, High refractive Index	•	•	•	
Photomer 6019	Aliphatic PUA	3	3250 (60°C)			Hardness, adhesion, non yellowing, haptic effect		•	•	

AMINE ACRYLATES

Photomer 4250	Amine modified polyether acrylate	4	350	•		Cure speed, high reactivity, oxygen inhibitor	•	•		
Photomer 4771	Acrylated amine synergist	2	700			Cure speed, non-yellowing, low viscosity	•	•	•	
Photomer 4967	Acrylated amine synergist	1	23	•		Cure speed, high reactivity, chemical resistance, oxygen inhibitor	•	•		
Photomer 5006	Amine modified polyether acrylate	1	73			Cure speed, high reactivity, chemical resistance, oxygen inhibitor	•			
Photomer 5850	Acrylated amine synergist	-	90			Low viscosity, high reactivity	•			
Photomer 5930	Acrylated amine synergist	-	500			Pigment wetting, high reactivity, chemical resistance, oxygen inhibitor	•	•		

*: For further registration information, please contact your local sales representative

Chemical Identity	Viscosity mPa.s at 25°C	Low shrinkage	Product attributes	EU Reach*	USA TSCA*	China IECSC*	Japan ENCS*
-------------------	-------------------------------	------------------	-----------------------	-----------	-----------	--------------	-------------

SPECIALTIES

Omnimer ACMO	Acryloymorpholine	14	•	Low viscosity, excellent heat resistance, low odour	•	S	•	•
Omnimer NVP	1-vinyl-2-pyrrolidone	2	•	Hydrophobic characteristics, adhesion		•	•	•
Omnimer VCL	Vinyl monomer	3	•	Hydrophobic characteristics, adhesion		•	•	•

*: For further registration information, please contact your local sales representative

S: SNUR for this product

Chemistry	Cas Number	Melting point °C	Sensitive application	LED	Pigmented system	Clear system	Waterbased system	Nestle Compliant	Swiss list Annex 10	U Reach*	USA TSCA*	China IECSC*	Japan ENCS*
-----------	---------------	---------------------	--------------------------	-----	---------------------	-----------------	----------------------	------------------	------------------------	----------	-----------	--------------	-------------

PHOTOINITIATORS

Esacure ONE	Type I	163702-01-0	98-110	•	•			Y	A	•	•	•	•
Esacure KIP 150	Type I	163702-01-0	Viscous Liquid**			•		N	-	•	•	•	
Esacure KIP 160	Type I	718668-15-0	> 96	•	•	•		Y	A	•	S		•
Omnirad 127	Type I	474510-57-1	45-50			•		Y	A	•	S	•	•
Omnirad 184	Type I	947-19-3	44-50			•	•	N	B	•	•	•	•
Omnirad 379	Type I	119344-86-4	88-93	•	•			Y	A	•	S	•	•
Omnirad 819	Type I	162881-26-7	127-133	•	•	•		Y	A	•	•	•	•
Omnirad TPO	Type I	75980-60-8	91-94		•	•		N	A	•	•	•	•
Omnirad TPO-L	Type I	84434-11-7	Liquid**	•	•	•		Y	B	•		•	
Esacure 1001 M	Type II	272460-97-6	> 100	•	•	•		Y	A	•	•		
Esacure 3644	Type II	Proprietary	68-71	•	•	•		Y	***	•	•	•	
Omnirad 4 PBZ	Type II	2128-93-0	99-103		•	•	•	N	B	•	•	•	
Omnirad DETX	Type II	82799-44-8	71-74		•	•		N	B	•	S	•	•
Omnirad ITX	Type II	5495-84-1	70-76		•	•		N	A	•	•	•	•

	Chemistry	Cas Number	Melting point °C	Sensitive application	LED	Pigmented system	Clear system	Waterbased system	Nestle Compliant	Swiss list Annex 10	UReach *	USA TSCA *	China IECSC *	Japan ENCS *
Omnipol TP	Polymeric Type I	Proprietary	Liquid **	•	•		•		Y	***	•	•		
Omnipol TX	Polymeric	813452-37-8	Liquid **	•	•	•			Y	A	•	•		
Omnipol 910	Polymeric Type I	886463-10-1	Liquid **	•	•	•			Y	B	•	•		
Esacure A 198	Amine synergist	925246-00-0	90-96	•		•	•		Y	A	•			
Omnipol ASA	Amine synergist	71512-90-8	Liquid **	•	•	•	•		Y	B	•	•		
Omnirad EHA	Amine synergist	21245-02-3	Liquid **			•	•		N	A	•	•	•	•

An addition level of 5 - 10% by weight of total formulation is recommended for Inkjet applications

*: For further registration information, please contact your local sales representative

** : At room temperature

***: Swiss Ordinance approval initiated

S: SNUR for this product

Swiss list Annex 10 (1st May 2017) / NESTLE Compliant (Aug 2016)

Our technical team is here to offer you support and advice to help you meet your goals. For our full product range, please refer to the UV/EB Radcure Product Guide.

Contact information

IGM Resins in the world



EUROPE

IGM Resins B.V.

Gompenstraat 49
5145 RM Waalwijk, The Netherlands
T: +31 416 286073
F: +31 416 564632

IGM Holding B.V. Iberica

Calle Pau Claris 186, 4th floor
08037 Barcelona, Spain
T: +34 93 476 5631
F: +34 93 396 1837

IGM Resins Italia S.r.l.

Insubrias Biopark
Via Roberto Lepetit, 34
21040 Gerenzano (VA), Italy
T: +39 02 9647 4929
F: +39 02 9544 1564



- New Site / Capacity Expansion
- Sales and Distribution
- Manufacturing
- R&D / Tech Support

Beijing CN ■ Tokyo JP
Haimen CN ■ Shanghai CN
Anqing CN ■ Taiwan TW

ASIA-PACIFIC

IGM Resins International Trading Shanghai Co., Ltd.

Unit 1704, CITIC Plaza
No. 859 North Sichuan Road,
Hongkou District, Shanghai,
200085 P. R. China
T: +86 0 215 2080993
F: +86 0 215 2080930

IGM Resins International Trading Taiwan Ltd.

15F. - 3, No. 88
Zhongshan Road
Zhongli City, Taoyuan,
County 320
Taiwan
T: +886 0 342 75275
F: +886 0 342 75279

IGM Japan GK

East Tower 4th floor,
Otemachi First Square,
1-5-1 Otemachi, Chiyoda-ku,
Tokyo, 100-0004
T: +81 3 5219 1502

APPLICATION LABORATORIES

IGM Resins Italia S.r.l.

Insubrias Biopark
Via Roberto Lepetit, 34
21040 Gerenzano (VA),
Italy

Insight High Technology (Beijing) Co., Ltd

Room 0911, Building
3, Zijin Digital Park,
Haidian District, Beijing,
100191, P. R. China

IGM Resins USA Inc.

3300 Westinghouse Blvd
Charlotte, NC 28273,
United States of America

For IGM's global network of officially appointed agents, please visit our website www.igmmresins.com

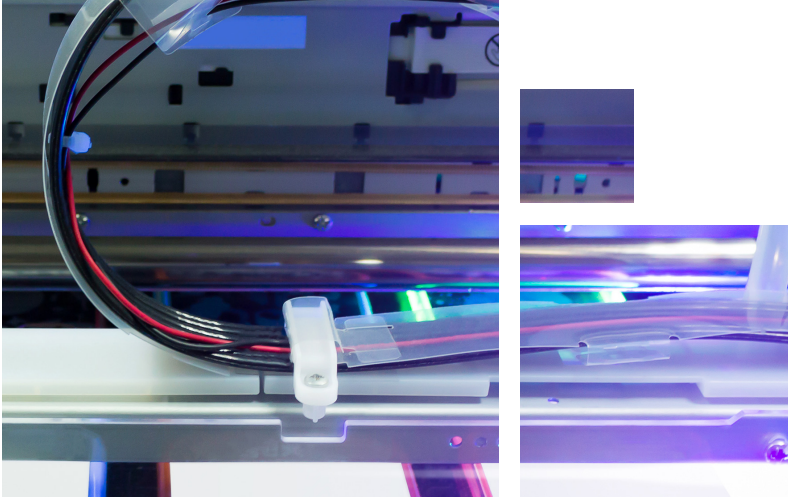
AMERICAS

IGM Resins USA Inc.

3300 Westinghouse Blvd
Charlotte, NC 28273
United States of America
T: +1 704 588 2500
F: +1 630 5249094

Quiminutri Comercio de Especialidades Quimicas Ltda.

Rua Alziro Cicchetto, 205
Distrito Industrial, Vinhedo, Brazil
T: +55 19 3856 4480



DISCLAIMER

The information and recommendations provided in this product catalogue are presented in good faith and believed to be correct. IGM Resins makes no representations or warranties as to the completeness or accuracy of the information provided.

The information is provided on the condition that the persons receiving it will make their own assessment as to its suitability for their own purpose and use.

No representations or warranties, either express or implied, of fitness for purpose or of any other nature are made herein with respect to information or product to which the information refers.

Photomer, Ominipol, Ominirad, Ominicat and Esacure are registered trademark of IGM Resins.



sales@igmresins.com
www.igmresins.com

