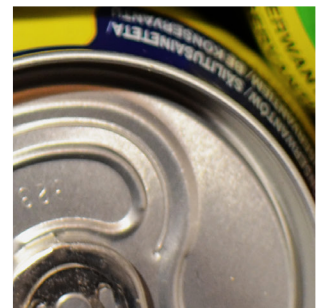


Cationic
Technology
—
Product
guide



We bring it all together.



Cationic technology

Product guide



ENERGY CURING RAW MATERIAL AND TECHNICAL SOLUTION PROVIDER

IGM Resins is the leading global provider of energy curable 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, monomers, oligomers and additives, is the cornerstone of our success.

Our dedication to energy curing technology and the markets we serve is emphasized by the development of next generation

products for innovative integrated solutions, ongoing investment into state-of-the-art manufacturing capabilities.

HOW TO GET MORE FROM US

Photoinitiators for cationic curing under UV light exposure produce a strong Brønsted acid which opens an epoxy group to form a carbonium cation. This cation then reacts with other epoxy groups producing a cross-linked film. The acid remains active meaning that the polymerization reaction continues after UV light exposure until the entire film is cured, also called dark cure.



Cationic formulated systems are typically used in:

Rigid Packaging

Can and coil coatings for food and non-food grade Steel cans and containers

Flexible Packaging

Inks and coatings for food and non-food grade packaging (e.g. shrink sleeves, sausage packaging, retort packaging)

Other

Laminating adhesives (e.g. metallized polyester films)

MAIN ADVANTAGES OF CATIONIC VERSUS ACRYLATE TECHNOLOGY:

Excellent cure properties

- Insensitive to oxygen inhibition
- Post / dark cure mechanism

Excellent adhesion

- Low shrinkage – typically 7% versus about 15% for acrylate technology

Excellent resistance properties

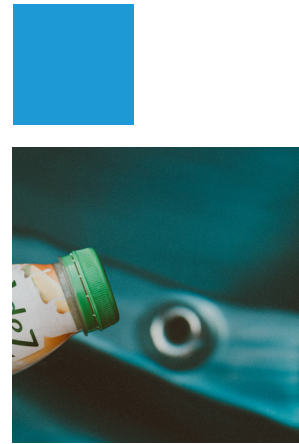
- Chemical and mechanical (hardness and flexibility)
- Retortable

Good application characteristics

- Low viscosity

To meet these challenging requirements, IGM can offer integrated cationic technology solutions. In this leaflet you will find information on our comprehensive product portfolio.

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



Appearance	Viscosity mPa.s at 25°C	Epoxy Equivalent Weight g/mol	Product attributes	EU Reach *	USA TSCA *	China IECSC *	Japan ENCS *	K-REACH *	Taiwan TCSI*	Canada*	Australia AICS*
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OLIGOMERS - CYCLOALIPHATIC EPOXIDE

Omnilane OC 1005	Colourless clear liquid	180 - 450	128 - 145	High temperature resistance	• a	•	•	•	•	DSL	•
Omnilane OC 2005	Colourless clear liquid	220 - 450	126 - 135	Low viscosity / high reactivity	• a	•	•	•	•	DSL	•
Omnilane OC 3005	Colourless clear liquid	400 - 750	190 - 210	High viscosity / high flexibility	•	• **	•	•	•	DSL	•

EU Reach = a: < 1000 ton / b: < 100 ton / c: < 10 ton

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

** : Active

Chemical Identity	Appearance	Product attributes	EU Reach *	USA TSCA *	China IECSC *	Japan ENCS *	K-REACH *	Taiwan TCSI*	Canada*	Australia AICS*
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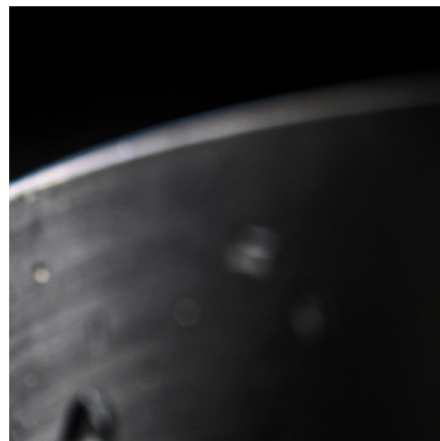
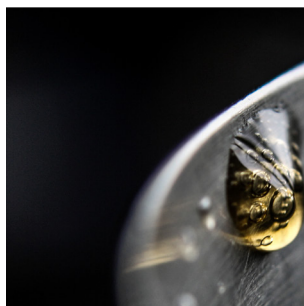
PHOTOINITIATORS

Omnicat 432	Sulfonium Salt	Yellow transparent liquid	High surface cure / may release benzene	• b	•	•		•	•	•
Omnicat 250	Diaryliodonium Salt	Yellow to brown liquid	Benzene free / SVHC	< 1t	•		•	•	•	•
Omnicat 270	Sulfonium Salt	White powder	Benzene free / Swiss Ordinance	• c	•			•		
Omnicat 550	Sulfonium Salt	Pale yellow powder	LED curable / Low odour / Benzene free / good for pigmented inks	< 1t	SNUR			•		
Omnicat BL 550	Sulfonium Salt	Brown liquid	LED Curable / Benzene free / Low odour / no sensitization	< 1t	SNUR			•		

EU Reach = a: < 1000 ton / b: < 100 ton / c: < 10 ton

DSL domestic substances list NDSL non-domestic substances list

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



	Appearance	Melting Range °C	Viscosity mPa.s at 25°C	Product attributes	EU Reach *	USA TSCA *	China IECSC *	Japan ENCS *	K-REACH *	Taiwan TCSI*	Canada*	Australia AICS*
SENSITIZERS												
Omnirad ITX	Pale yellow powder	70 -76	-	Improves efficiency of iodonium salts	• a	•	•	•	•	•	DSL	•
Omnirad CPTX	Yellow powder	150 - 154	-	Improves efficiency of iodonium salts	< 1t	•					NDSL	
Omnirad 1173	Colourless to slightly yellow liquid	4	25	Accelerate decomposition of cationic salt	• a	•	•	•	•	•	DSL	•
Omnirad 184	Fine to coarse white powder	47 - 49	-	Accelerate decomposition of cationic salt	• a	•			•			
Omnirad 127	Off white powder	82 - 90	-	Accelerate decomposition of cationic salt	• b	SNUR			•			

EU Reach = a: < 1000 ton / b: < 100 ton / c: < 10 ton

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

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 Energy Curing 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.igmresins.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



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sales@igmresins.com
www.igmresins.com