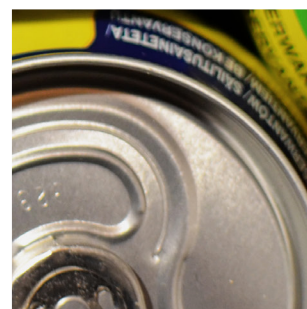


Cationic
Technology
—
Product
guide



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

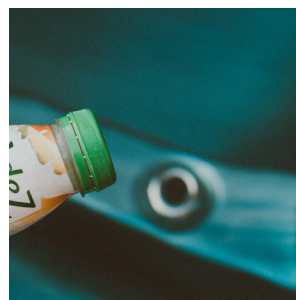
- Chemical and mechanical (hardness and flexibility)
- Retortable

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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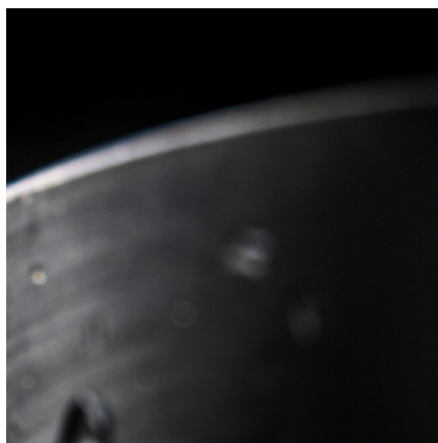
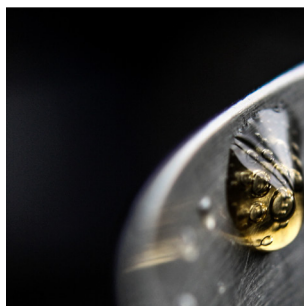
PHOTOINITIATORS

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 D ?	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.

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

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



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