

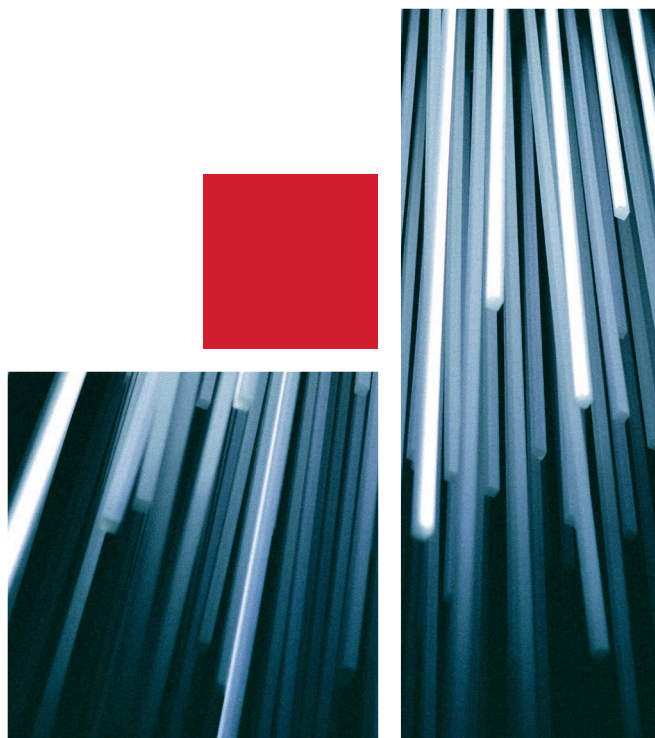
Optical  
Fiber  
—  
Product  
Guide

We Enable the Transformation of Light for a Better Future.



# Optical Fiber

## Product guide



### **ENERGY CURING RAW MATERIAL AND TECHNICAL SOLUTION PROVIDER**

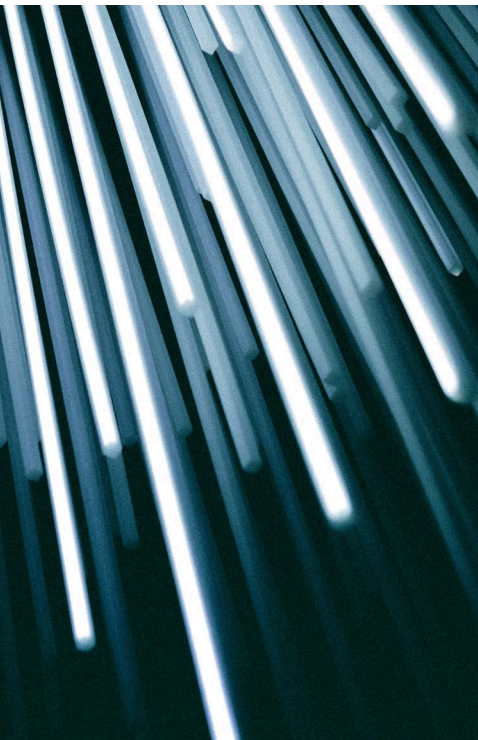
IGM Resins is the leading global provider of energy curable raw material solutions to a wide variety of industries such as graphic arts, industrial coatings, adhesives and 3D printing. The combination of our global presence, unique market driven and customer focused approach, technical and regulatory 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, and ongoing investment into state-of-the-art manufacturing capabilities.

### **THE IGM RESINS ADVANTAGE**

The Asia-Pacific region is now the world 's largest market for fiber optic cables, followed closely by North America and EMEA. With the

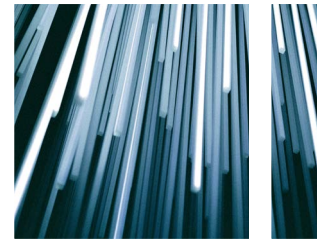
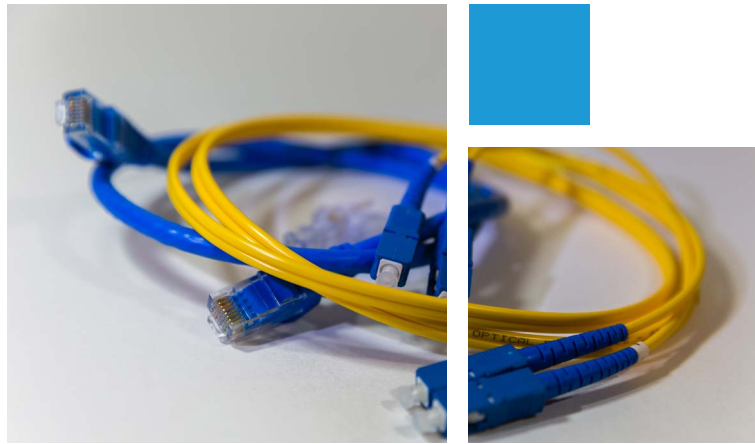
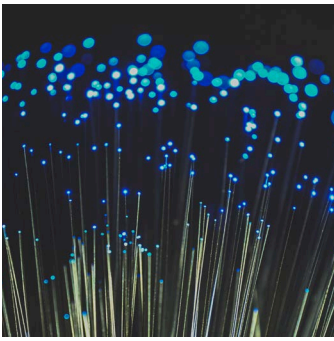


growth of global informatization and the popularization of 5G technology, the worldwide cable market is expected to reach \$227.54 billion in 2026 at a CAGR of 26.1%\*. It is vitally important to partner with suppliers who are actively monitoring and addressing the rapid changes in this technology. Coatings play a key role in ensuring optical fiber meets environmental and mechanical specifications as well as optical performance requirements. Utilizing UV curing technology in the production of the optical coating materials

accomplishes this while improving quality and reducing cost. As the global leader in the manufacture of energy curing materials, iGM Resins offers a wide range of efficient and environmentally friendly optical fiber coating product solutions. Our customers can rely on us to meet all of their optical coatings application needs.

\*Data Source: Fiber Optical Cable Global Market Report 2022 by Reportlinker.com





### **SUPPLY CHAIN CONFIDENCE**

Our manufacturing facilities in EMEA, and Asia, along with our acquisition of Litian have solidified our global footprint. Our longstanding cooperation with dependable tolling partners as well as having a reliable supply chain enable us to efficiently deliver products worldwide.

### **DEDICATED CUSTOMER SERVICE**

In response to market dynamics and customer's needs, iGM Resins regularly collaborates with our customers on target applications to resolve production issues. Our team of industry experts works alongside them to develop innovative solutions that address their specific requirements.

### **COMMITMENT TO INNOVATION**

IGM Resins continually invests in R&D to deliver innovative UV LED products, including Omnirad TPO, Omnirad 819, Omnirad 184, Photomer 3016, and others that are environmentally friendly and help our customers increase productivity while lowering costs.

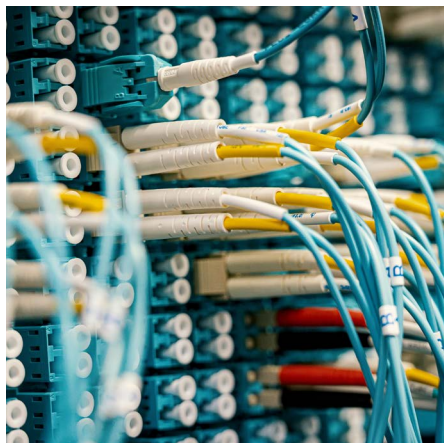
### **FOCUSED ON SUSTAINABILITY**

Sustainability is integral to the IGM Resin's vision. Our recent "Go, Grow, Green" cultural transformation underscores our dedication to developing products that comply with environmental protection requirements. Our Pureline™ product line offers bio-based energy curing resins, such as PureOmer4812, PureOmer 2012, PureOmer 3005 and PureOmer4012.

### **DIVERSE PRODUCT PORTFOLIO**

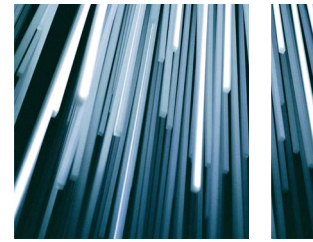
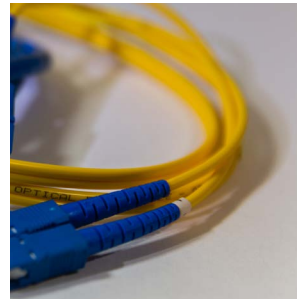
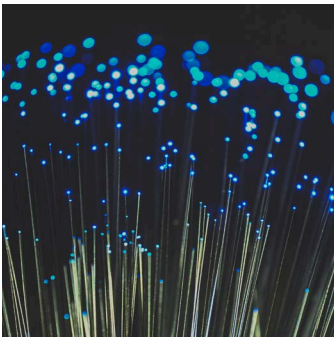
IGM Resins' line of high quality, sustainable photoinitiators, energy curing resins and additives together with our backward integration of key raw materials and diversification of resins production enables us to deliver optical fiber coating product solutions that exceed the expectations of our customers around the world.

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



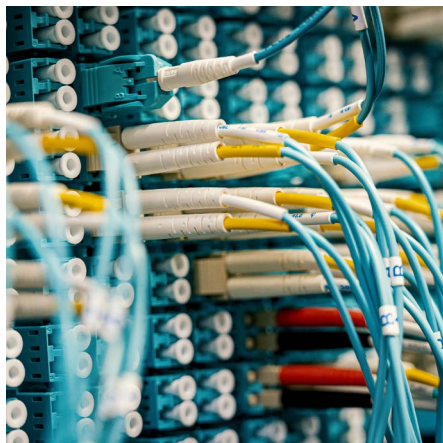
Product	Chemistry	CAS Number	Molecular weight g/mol	Melting point °C	UV-Absorption nm	Through Cure	Surface Cure	LED Cure
<b>PHOTOINITIATORS</b>								
Omnirad TPO	Type I	75980-60-8	348.4	91-94	275, 379	•••		•••
Omnirad 184	Type I	947-19-3	204.3	44-50	243, 331	••	•••	•
Omnirad 907	Type I	71868-10-5	279.4	73-76	230, 303	•••	••	••
Omnirad 819	Type I	162881-26-7	418.5	127-133	237, 275, 380	•••	•	•••
Esacure KIP 100F	Type I	163702-01-0 and 7473-98-5	blend	/	260	•	•••	
Omnirad EMK	Type II	90-93-7	324.5	93-96	324,5	•••	•••	•••
Omnirad DETX	Type II	82799-44-8	268.4	71-74	261, 385	•••	••	•••
Omnirad ITX	Type II	5495-84-1	254.3	70-76	255, 384	•••	••	•••
Omnirad EDB	Amine synergist	10287-53-3	193.2	62-68	228, 308		•••	

\*: At room temperature



Product	Chemical identity	Functionality	Viscosity mPa.s   at 25°C	Tg   °C	Surface Tension 25°C   m n/m	Product attributes	Reactivity	Flexibility
Photomer 3016	Bisphenol A epoxy diacrylate	2	5500*	60		Gloss, chemical resistance, coating hardness	••	•
Photomer 4003	Nonyl phenol ethoxylate acrylate	1	100	-27		Adhesion, flow & leveling, high Molecular Weight resin compatibilizer, flexibility	••	•••
PureOmer 4012	Isobornyl acrylate (IBOA)	1	10	88	32	Solvency, adhesion, good flexibility, thermoforming. Bio-based Content (ASTM D6866-21) : 78 %	••	••
Photomer 4808	Octyl decyl acrylate (ODA)	1	6	-53	27	Hydrophobic, good wetting properties, good flexibility, good adhesion	•	••
Photomer 4810	Isodecyl acrylate (IDA)	1	8	-60	29	Flexibility, hydrophobic, pigment wetting, substrate wetting	•	•••
PureOmer 4812	Lauryl acrylate (LA)	1	7	-30	30	Flexibility, hydrophobic, good adhesion, low shrinkage, Bio-based Content (ASTM D6866-21) : 81 %	•	•••
Photomer 4035	Phenoxyethyl acrylate (PEA)	1	10	5	38	Adhesion, coating hardness, high MW resin compatibility	••	•••
Photomer 4141	Cyclic Trimethylolpropane formal acrylate (CTFA)	1	15	40	36	Adhesion, coating hardness, chemical resistance	••	••
Photomer 4017	Hexanediol diacrylate (HDDA)	2	8	41	35	Adhesion, chemical resistance, high solvency and cutting power	•••	•
Photomer 4028	Bisphenol-A [4 EO] diacrylate	2	1000	63	43	Gloss, low shrinkage, low skin irritation, litho additive	••	
Photomer 4061	Tripropyleneglycol diacrylate (TPGDA)	2	14	64	32	Versatile, good flexibility and high reactivity	••	•
Photomer 4226	Dipropyleneglycol diacrylate (DPGDA)	2	10	96	33	Pigment wetting, high reactivity, high solvency and cutting power	••	•
Photomer 4006	Trimethylolpropane triacrylate (TMPTA)	3	100	62	50	High reactivity, coating hardness, chemical resistance	•••	•
Photomer 4072	Trimethylolpropane [3 PO] triacrylate (TMP3POTA)	3	80	-15		High reactivity, flexibility, chemical resistance, low shrinkage	•••	••
Photomer 4184	2-[[butylamino]carbonyl]oxy ethyl acrylate	1	35	-3		Flexibility, adhesion, high elongation	•	•••

Contact our sales department to know more about local availability. Regional portfolio differences might apply



Product	Chemical identity	Functionality	Viscosity mPa.s   at 25°C	Tg   °C	Surface Tension 25°C   m n/m	Product attributes	Reactivity	Flexibility
Photomer 6024	Aliphatic urethane diacrylate	2	45000	-51		Good flexibility, yellowing resistance and good UV/EB cure reactivity	••	•••
Photomer 6008	Aliphatic urethane triacrylate	3	16000*	47		Coating hardness, tensile strength, chemical resistance, non-yellowing	••	••
Photomer 6019	Aliphatic urethane triacrylate	3	3250*	51		Coating hardness, tensile strength, adhesion, non-yellowing	••	••
Photomer 6892	Aliphatic urethane triacrylate	3	29500	14		Adhesion, chemical resistance, flexibility, scratch resistance, non-yellowing	••	•••
Photomer 6628	Aliphatic urethane hexaacrylate	6	80000	80		Cure speed, impact resistance, scratch and chemical resistance, non-yellowing	•••	••

\* Viscosity at 60°C

Contact our sales department to know more about local availability. Regional portfolio differences might apply

Product	Incorporation	Dosage   %	Active content   %	Product attributes
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### SILICONE-FREE FOAM CONTROL ADDITIVES

Omnivadd WD 2020	Before or after processing	0.1-0.7	20	Acid-cure and NC-curtain coating systems, unsaturated polyester and gelcoats
Omnivadd WD 2720	Before or after processing	0.1-1.0	-	Unsaturated polyester, epoxy and polyurethane systems

### SILICONE-CONTAINING FOAM CONTROL ADDITIVES

Omnivadd WD 2286	Before processing	0.05-0.6	> 98	For solvent borne and radiation curing coatings, inks and varnishes. Ideal for high speed rotation screen printing inks
Omnivadd WD 2723	Prior to processing	0.5-1.5	100	Solvent-free epoxy and polyurethane systems, low odour

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 or visit our website.



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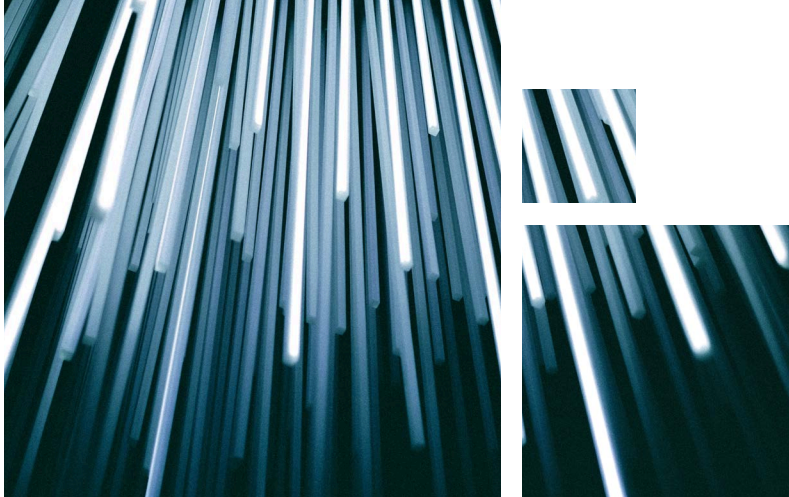
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*For IGM's global network of officially appointed agents, please visit our website [www.igmresins.com](http://www.igmresins.com)*



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