ENERGY CURING

PRODUCT GUIDE 2026

RAHN

Your partner for excellence

Contents

This guide includes our most successfully used and commercially fully supported products. If your requirements cannot be met with any of these products, please contact us directly to help you find a solution.

Worldwide support
for your energy curing systems

Energy Curing – a diverse range of applications

What is the best way to get ink to adhere to laminated paper? How do objects created with a 3D printer keep their shape, and what kind of adhesive is required for immediate curing? You can overcome these and countless other challenges using ultraviolet and electron beam curing techniques. This Product Guide contains details of our main commercially available raw materials – additives, oligomers, reactive diluents, photoinitiators and other specialty chemicals. These can be used for an extremely wide range of applications – in inks, coatings, adhesives, medical products and rapid prototyping.

Can't find what you're looking for?

Our Product Guide lists the key features of our main products. If you can't find the specific feature you require, please get in touch with our experts. We will be happy to discuss your particular needs and find an effective solution. We run our own laboratories in Switzerland, United States and China. This has enabled RAHN-Energy Curing to develop hundreds of starting formulations during the last thirty years and more. Each of them was inspired by a particular industry challenge.

RAHN: Swiss expertise
all over the world



Regulatory & Sustainability expertise

Chemical products face growing global regulatory pressure due to evolving laws on their composition and use. Our R&S expertise center actively monitors and responds to chemical legislation worldwide. We ensure compliance by registering substances under frameworks like EU-REACH, UK-REACH, Turkey's KKDIK, TSCA, DSL, and China's IECSC. We also list substances in Japan, Australia, and New Zealand. We track regulatory requirements such as the Swiss Ordinance, German Ink Ordinance, EuPIA list, and Nestlé list to support the use of our products in indirect food contact applications; and we occasionally seek additional listings. As regulations expand to include sustainability concerns like the EU ESPR, we are enhancing our expertise. Contact the RAHN R&S team for more information.

Your partner, not just any supplier

We have been researching, producing and supplying customized specialty chemicals for more than thirty years. Over time, we have nurtured long-standing partnerships with our customers. This kind of collaboration is the only way to find the optimum answer to the challenges that you face.

A Swiss family-run company – in its third generation

RAHN is an independent Swiss family-run company. It is now in the hands of the third generation. Thanks to our financial independence, we are able to make swift business decisions and entertain long-term commitments.

Profound experience in the sector

Our crucial success factors are the specialist skills and expert-knowledge of our staff. They are able to advance day by day in our open and transparent culture. We have an extremely loyal team of employees, so you will continue to deal with the people you know as time passes by.

Be inspired

Our customers create amazing results with our raw materials for digital inkjet printing – no matter whether gloss, matte, or even 3D effects. What's more, they can be used to print on almost any material. Whether, paper, glass, wood, plastic or metal, we have the right products to meet all sorts of needs and technical requirements.

Eye-catching food packaging

Food packaging jostles for customers' attention on supermarket shelves and in the aisles. Our specially developed products with their high molecular weight ensure that the inks contain no undesirable substances that might penetrate the packaging. This keeps the food safe and lets the advantages of radiation-curing ink systems shine out for all to see.

Shape-retaining workpieces created with 3D printing

Our customers not only use our products to create 3D effects, but also generate robust workpieces with their 3D printers. Our raw materials reduce shrinkage and ensure objects match our customers' precise specifications.

Tap into our expertise

Would you like to know more? Our Product Flashes give details on specific products or applications whilst our Lab Reports contain the latest findings in our laboratories – e.g. for 3D printing, LED and digital or inkjet printing. You can find out more at www.rahn-group.com/news.

Use our laboratories

Would you like to work together with us to find out what works and to produce the optimum result for your project? Our laboratories are at your disposal – for training your staff as well, should you wish.

Expertise boosts
customer confidence

Specializing in UV and electron beam technology, our Energy Curing experts have an international remit. We want to be more than a supplier for our customers. Our goal is to be a reliable partner to help drive their business forward and generate measurable benefits.

With a sustainable approach

RAHN has been promoting UV/EB curing for over 30 years, which is recognized as a green technology. Compared with conventional curing technologies, significant CO_2 savings can be made, reducing greenhouse gas emissions and decreasing our carbon footprint.

RAHN's new bio-based energy curable oligomers are a testament to the company's commitment to sustainability. Bio-based materials can have an improved environmental profile. In using them, one can contribute to a low carbon economy because as they grow, they take up CO_2.

We have several interesting products in our range for this approach. We also have the expertise to develop customized solutions. Get in touch with RAHN.

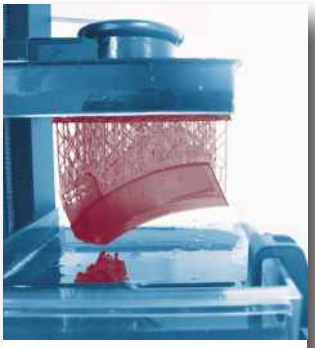
TECHNICAL LITERATURE

Additional RAHN-documents are available. For more details click on our website at www.rahn-group.com/energycuring or contact your local RAHN-Sales Representative for further information.

Product Guide

Product Guide is available on our website as PDF in English and Chinese.

Lab Reports



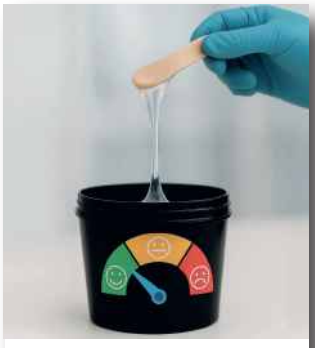
3D Printing

Adhesion of Oligomers to Glass and Metal

Electron Beam Curing

Electron Beam Curing Laminating Adhesives

Laminating Adhesives



Oligomer Screening

Lab Reports

Photoinitiators for UV LED

PSA -Pressure Sensitive Adhesives

Raw Material Selection for UV-LED

Taber and Sand Feeder

UV Curing Flexographic Inks

UV Inkjet Inks

UV Offset Inks

Formulation Insights for Excimer Lamps

Coil Coating

TECHNICAL LITERATURE

Product Flash

ACMO

Bio-Based Contents of RAHN-Products

GENOMER* 3364, 3497, 3414 & 3457

GENOMER* 4217 & 4425

GENOMER* 7287

GENOPOL Polymeric Photoinitiators

GENORAD* 21

Printed Electronics

Reactive Diluents Product Line

GENOMER* 4277

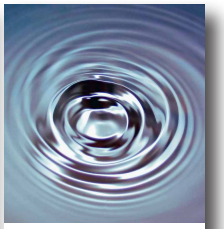
GENOMER* 4293

GENOMER* 3143

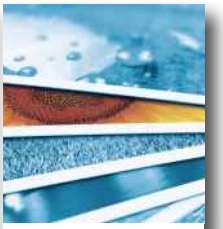
GENOMER* 1226

GENOMER* 1122 & TF

GENOMER* 2281



GENOMER* 3486



MIRAMER LR3130

GENOMER* 2297

GENOMER* 7244

GENOMER* 1117LR

GENOMER* 1254M

GENOMER* 3135

GENOMER* 4337

More Product Flash are available on our website.

Identification Code

GENOMER* Product-code

1st digit: Product Group
2nd digit: Functionality
3rd and 4th digit: Product reference

Dilutions

M22	=	GENOMER* 1122
PP	=	PPTTA
EHA	=	2-Ethylhexyl-Acrylate
ETM	=	TMP(EO)3TA
HD	=	HDDA
TM	=	TMPTA
TP	=	TPGDA
GP	=	GPTA

Ask for other available dilutions

Product Data

Color A	= APHA
Color G	= Gardner
2	= Literature Value

Properties

++++	=	excellent
+++	=	good
++	=	moderate
+	=	low
•	=	provides the mentioned property

HS & Registration Status

REACH	= Registration, Evaluation, Authorisation and Restriction of Chemicals (EU)
TSCA	= Toxic Substance Control Act (USA), active inventory
IECSC	= Inventory of Existing Chemical Substances Produced or Imported in China (Version 3.4)
Swiss Ordinance	= Swiss Ordinance on Materials and Articles, Swiss Ordinance 817.023.21, Annex 10 (Version 3.2)

RAHN is assessing its product portfolio for compliance with the German Printing Ink Ordinance, effective 1 January 2027, and will publish the results in the Product Guide 2027.

R	=	Registered (NB non-EU customers please contact RAHN before importing the product into the EU as per REACH regulation)
N	=	Not registered / not on inventory
L	=	Yes, is listed on inventory
❩	=	Special status, contact RAHN HSR
1	=	All intentionally present substances or monomers are either listed in Annex 10 or are not classified as CMR based on available data.
2	=	One or more intentionally present substances/monomers are not listed in Annex 10 and exhibit positive CMR properties

Applications / Abbreviation

Digital Inks	= DIG
Offset Inks	= OFF
Flexo inks	= FLE
Screen Inks	= SCR
Overprint Varnishes	= OPV
Wood Coatings	= WOC
Composites	= COM
Electronics	= ELE
Adhesives	= ADH
Coatings on Plastics	= PLA
3D Printing	= 3DP
Cosmetics & Dental	= DNC

Features

= Product featured for LED application

= The bio-based carbon content figures, in this case 85%, listed in this brochure are measured using the standard ASTM D6866 analyses. D6866 uses the measured carbon-14 content to calculate the bio-based carbon content of the product and hence shows how much of the product is derived from plant components versus fossil-based components. It should also be noted that the bio-based content of a material is not an indicator of the biodegradability of the material.

Reactive Diluents

Product	Product Data (Typical Values)									HS & Registration					
	Description	Functionality	Color	Acid Value (mg KOH/g)	Viscosity (mPa.s at 25 °C)	Tg (°C)	Surface Tension Dynes/cm	Molecular Weight (g/mol)	Refractive Index	REACH-Status	Active TSCA inventory	IECSC-Status	Swiss Ordinance-Status	Reactivity	Gloss
Monofunctionals															
GENOMER* 1117LR	CTFA	1	30 A	0,1	10	20	33,1	200	1,467	R	L	L	1	•	
GENOMER* 1120	TMCHA	1	100 A	0,1	3	43	28	196	1,453	N	L	L	1	•	
GENOMER* 1121M	IBOMA	1	20 A	0,5	8	113	29,4	222	1,477	R	L	L	1		
GENOMER* 1121Y	IBOA	1	10 A	0,1	8	80	31,7	208	1,474	R	L	L	1	•	
GENOMER* 1122	Aliph. Ureth. Acryl.	1	20 A	1,0	30	-3	33,3	215	1,460	R	L	L	1		•
GENOMER* 1122TF◊	Aliph. Ureth. Acryl.	1	25 A	3,0	35	–	–	215	1,459	R	L	L	1		•
GENOMER* 1125	DCPA	1	25 A	0,5	14	110	36	204	1,508	R	L	L	1	•	
MIRAMER M122	LA	1	150 A	0,5	15	-30[2]	30	240	1,442	R	L	L	1		
MIRAMER M130	IDA	1	100 A	0,2	3	-60[2]	24,3	212	1,440	R	L	L	1		
MIRAMER M140	PH(EO)A	1	100 A	0,1	13	5	40,1	192	1,516	R	L	L	2		
MIRAMER M144	PH(EO)4A	1	20 A	0,3	35	-32	41,9	324	1,500	R	L	L	2		
MIRAMER M170	EOEOEA	1	150 A	0,3	10	-53	29,7	188	1,437	R	L	L	1		
Difunctionals															
GENOMER* 1226	MPDDA	2	15 A	0,5	7	50	33	226	1,454	R	L	N	1	•	
GENOMER* 1229M	TEGDMA	2	30 A	0,1	10	53	34,7	286	1,461	R	L	L	2		•
GENOMER* 1231	TCDDA	2	122 A	0,03	136	110	38,0	304	1,503	R	L	L	1	•	
GENOMER* 1232M	PEG200DMA	2	40 A	0,1	15	51	34,1	336	1,463	R	L	L	1		•
GENOMER* 1251M	PEG400DMA	2	35 A	0,3	35	-21	40	536	1,466	R	L	L	1		•
GENOMER* 1254M	BPA(EO)4DMA	2	15 A	0,1	600	100	39,4	540	1,5351	R	L	L	1		•
GENOMER* 1280M	BPA(EO)10DMA	2	20 A	0,1	390	-2	41,9	804	1,511	R	L	L	1	•	•
MIRAMER M200	HDDA	2	50 A	0,2	10	43[2]	35,9	226	1,465	R	L	L	1	•	
MIRAMER M216	NPG(PO)2DA	2	35 A	0,1	15	32	30,6	328	1,446	R	L	L	1	•	•
MIRAMER M220	TPGDA	2	100 A	0,2	18	62[2]	33,3	300	1,449	R	L	L	1	•	•
MIRAMER M222	DPGDA	2	100 A	0,3	15	104[2]	33,5	242	1,450	R	L	L	1	•	•
MIRAMER M240	BPA(EO)4DA	2	3 G	0,2	1200	60[2]	42,1	512	1,537	R	L	L	1	•	•
MIRAMER M280	PEG400DA	2	100 A	0,3	70	-22	42,6	508	1,466	R	L	L	1	•	•
MIRAMER M282	PEG200DA	2	100 A	0,5	25	–	40,1	308	1,464	R	L	L	1		•
MIRAMER M284	PEG300DA	2	150 A	0,5	50	-8	41,6	408	1,466	R	L	L	1		•
MIRAMER M286	PEG600DA	2	150 A	0,5	85	-36	42,3	708	1,468	R	L	L	1	•	•

◊tin free (free of intentionally added tin compounds)

Properties				Applications	Key Features
Flexibility	Hardness	Chemical Resistance	Adhesion		
				Digital Inks = DIG; Offset Inks = OFF; Flexo inks = FLE; Screen Inks = SCR; Overprint Varnishes = OPV; Wood Coatings = WOC; Composites = COM; Electronics = ELE; Adhesives = ADH; Coatings on Plastics = PLA; 3D Printing = 3DP; Dental & Cosmetic = DNC	
•		•	•	DIG, FLE, SCR, OPV, WOC, ELE, ADH, PLA, 3DP	TMPTA free, low shrinkage, good adhesion, high flexibility, toughness, good chemical resistance, non-yellowing
•			•	DIG, FLE, SCR, OPV, ELE, ADH, PLA, 3DP	Excellent adhesion, low viscosity, high flexibility, good plastic wetting, low surface tension
	•		•	COM, ELE, ADH, PLA, 3DP	Very high Tg, good cutting power, high hardness, good adhesion and moisture resistance
	•	•	•	DIG, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	High Tg but also good flexibility, good cutting power, good adhesion and moisture resistance
•			•	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	High flexibility and low odor, excellent adhesion on plastics
•			•	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	High flexibility and low odor, excellent adhesion on plastics, tin free
•			•	DIG, FLE, SCR, ELE, ADH, PLA, 3DP	Good adhesion on plastics, excellent water resistance, high reactivity
•			•	OFF, FLE, SCR, WOC, ADH	Hydrophobic, flexibility, low volatility and good adhesion
•			•	DIG, SCR, ADH, PLA	Hydrophobic, flexibility and adhesion, low Tg and surface tension
•			•	DIG, FLE, SCR, ADH, PLA,	Good cutting power, good adhesion on plastics
•			•	DIG, FLE, SCR, ELE, ADH, PLA	Good adhesion, good flexibility, low shrinkage
•			•	DIG, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	High flexibility and low shrinkage, low Tg, excellent cutting power
•	•	•	•	DIG, OFF, FLE , SCR, OPV, WOC, ADH, PLA, 3DP	Excellent cutting power, outstanding adhesion on plastics, low viscosity, low odor, weatherability
	•	•	•	COM, ADH, PLA, 3DP, DNC	Low viscosity, good adhesion, good heat and chemical resistance, hydrophilic
•	•	•	•	OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Good adhesion, excellent flexibility and toughness, heat resistance, low polarity
	•			COM, ADH, PLA, 3DP, DNC	Low viscosity, good hardness, hydrophilic
•				COM, ADH, PLA, 3DP, DNC	Low viscosity, good flexibility, high clarity, minimal ash residue, hydrophilic
	•	•	•	DIG, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP, DNC	Low shrinkage, low volatility, high refractive index, good adhesion on various substrates
•				COM, ADH, PLA, 3DP, DNC	Low shrinkage, low odor, low volatility, good impact resistance, high clarity
•	•	•	•	DIG, FLE, SCR, OPV, WOC, ADH, PLA	Excellent cutting power, outstanding adhesion on plastics, weatherability
•	•		•	DIG, OFF, FLE, SCR, OPV, ELE, ADH, PLA	Low viscosity, good flexibility
•		•		FLE, SCR, OPV, WOC, ADH, PLA	Low volatility, good cutting power
•		•	•	DIG, FLE, SCR, OPV, WOC, ADH, PLA	Low volatility, good cutting power, high Tg
	•	•	•	OFF, FLE, SCR, OPV, WOC, COM, PLA	Good hydrophobic and hydrophilic balance, good heat resistance
•			•	FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	Water soluble, high flexibility, low shrinkage and low odor
		•	•	FLE, SCR, OPV, WOC, ADH, PLA	Soft and flexible
•			•	FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	Water soluble, high flexibility and low shrinkage
•				FLE, SCR, OPV, WOC, ADH, PLA	Water soluble, high flexibility and low shrinkage

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Reactive Diluents

Product	Product Data (Typical Values)									HS & Registration					
	Description	Functionality	Color	Acid Value (mg KOH/g)	Viscosity (mPa.s at 25 °C)	Tg (°C)	Surface Tension Dynes/cm	Molecular Weight (g/mol)	Refractive Index	REACH-Status	Active TSCA inventory	IECSC-Status	Swiss Ordinance-Status	Reactivity	Gloss
Tri- and Poly-Functionals															
MIRAMER M300	TMPTA	3	50 A	0,2	110	62[2]	36,6	296	1,472	R	L	L	1	•	•
MIRAMER M3130	TMP(EO)3TA	3	15 A	0,1	60	40	38,1	428	1,469	R	L	L	1	•	•
MIRAMER LR3130	TMP(EO)nTA	3	15 A	0,2	65	30	38,8	↑	1,468	R	L	L	1	•	•
MIRAMER M3150	TMP(EO)15TA	3	20 A	0,3	190	-31	42	956	1,471	R	L	L	1		
MIRAMER M3160	TMP(EO)6TA	3	10 A	0,2	90	22	39,6	560	1,470	R	L	L	1	•	•
MIRAMER M3190	TMP(EO)9TA	3	140 A	0,3	130	-3[2]	40,2	692	1,469	R	L	L	1	•	
MIRAMER M320▲	GPTA	3	150 A	1,0	110	33	36	428	1,461	R	L	L	1	•	•
MIRAMER M340	PETA	3	200 A	2,0	1800	103[2]	40,6	298	1,480	R	L	L	1	•	•
MIRAMER M360	TMP(PO)3TA	3	150 A	0,3	110	27	34	470	1,459	R	L	L	1	•	
MIRAMER M410	DiTMPTA	4	150 A	0,1	600	98[2]	36,8	467	1,476	R	L	L	1	•	•
MIRAMER M4004	PPTTA	4	100 A	0,1	150	33	40,9	572	1,471	R	L	L	1	•	•
MIRAMER M600	DPHA	6	150 A	0,2	7000	35	41,1	578	1,489	R	L	L	1	•	

▲also available as toluene-free version MIRAMER M320F

Properties				Applications	Key Features
Flexibility	Hardness	Chemical Resistance	Adhesion		
				Digital Inks = DIG Offset Inks = OFF Flexo inks = FLE Screen Inks = SCR Overprint Varnishes = OPV Wood Coatings = WOC Composites = COM Electronics = ELE Adhesives = ADH Coatings on Plastics = PLA 3D Printing = 3DP	
	•	•		DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, PLA	Excellent reactivity, good offset properties, chemical resistance, low volatility
	•	•		DIG, OFF, FLE, SCR, OPV, WOC, ELE, PLA	Higher reactivity, flexibility and viscosity reduction compared to TMPTA
	•	•		DIG, OFF, FLE, SCR, OPV, WOC, ELE, PLA	Similar properties to M3130 with low TMPTA residual
•				DIG, OFF, FLE, SCR, OPV, ADH, PLA	Good flexibility, low shrinkage, hydrophilic
•				DIG, OFF, FLE, SCR, OPV, ELE, ADH, PLA	High reactivity, good flexibility, hydrophilic
	•			DIG, OFF, FLE, SCR, OPV, COM, ADH, PLA	High reactivity, good flexibility, low shrinkage, hydrophilic
	•	•		OFF, FLE, SCR, OPV, WOC, PLA, 3DP	High reactivity, pigment wetting, good hardness and litho properties
	•	•	•	OFF, FLE, SCR, OPV, WOC, COM, ELE, PLA	High reactivity and hardness with pendant OH groups, chemical resistance and low vapor pressure
•	•	•		DIG, OFF, FLE, SCR, OPV, COM, ADH, PLA	High reactivity, good flexibility
	•	•		OFF, FLE, SCR, OPV, WOC, COM, ELE, PLA	Excellent reactivity and cross-linking
	•	•		OFF, FLE, SCR, OPV, WOC, ELE, PLA	High reactivity, excellent scratch resistance
	•	•		OFF, FLE, SCR, OPV, WOC, ELE, ADH, PLA	Very high reactivity and surface hardness

Epoxy Acrylates

Product	Product Data (Typical Values)								HS & Registration					
	Description	Functionality	Color	Acid Value (mg KOH/g)	Viscosity (mPa.s at 25 °C)	Tg (°C)	Shrinkage %	Refractive Index	REACH-Status	Active TSCA inventory	IECSC-Status	Swiss Ordinance-Status	Reactivity	Flexibility
GENOMER* 2235	Aliphatic Epoxy Acrylate	2	3 G	7	1100	45	7,3	1,480	R	L	L	2	++++	+++
GENOMER* 2252	Epoxy Acrylate	2	1 G	1	5400 (60°C/140°F)	105	4,7	1,560	R	L	L	1	++++	++
GENOMER* 2253	Modified Epoxy Acrylate	2	1 G	1	30 000	-1	3,0	1,523	R	L	L	1	++++	++++
GENOMER* 2259	Modified Epoxy Acrylate	2	2 G	1	25 000	85	4,5	1,533	R	L	L	1	++++	++
GENOMER* 2263	Epoxy Acrylate	2	1 G	4	4000 (60°C/140°F)	99	3,4	1,560	R	L	L	1	++++	++
GENOMER* 2280	Modified Epoxy Acrylate	2	2 G	4	5000 (60°C/140°F)	62	4,4	1,530	R	L	L	1	++++	++
GENOMER* 2281	Modified Epoxy Acrylate	2	1 G	1	4500 (60°C/140°F)	66	4,0	1,530	R	L	L	1	++++	++
GENOMER* 2312	Epoxidized Soy Oil Acrylate	3	7 G	7	20 000	-12	3,0	1,484	R	L	L	1	++	++++

Available dilutions: GENOMER* 2252 in TP20, TP40, TM20 and GP25

Polyester/Polyether Acrylates

Product	Product Data (Typical Values)								HS & Registration					
	Description	Functionality	Color	Acid Value (mg KOH/g)	Viscosity (mPa.s at 25 °C)	Tg (°C)	Shrinkage %	Refractive Index	REACH-Status	Active TSCA inventory	IECSC-Status	Swiss Ordinance-Status	Reactivity	Flexibility
GENOMER* 3135	Polyester Acrylate	1	50 A	2	530	16	6,3	1,457	R	L	❩	1	+	++++
GENOMER* 3143	Polyester Acrylate	1	19 A	2	4 500 (60°C/140°F)	28	<1	1,491	R	L	❩	1	+	++
GENOMER* 3303	Polyester Acrylate	3	3 G	8	20 000	19	5,4	1,506	R	L	L	1	+++	++++
GENOMER* 3364	Polyether Acrylate	3	15 A	0,5	130	26	8,3	1,475	R	L	L	1	++	++
GENOMER* 3365	Polyether Acrylate	3	20 A	<1	150	–	9,3	1,453	R	L	L	1	++	++
GENOMER* 3414	Polyether Acrylate	4	50 A	0,5	4500	-14	6,2	1,483	R	L	L	1	++++	++++
GENOMER* 3430	Polyether Acrylate	4	1 G	1	600	-6	4,9	1,479	R	L	N	1	++++	++++
GENOMER* 3457	Polyether Acrylate	4	20 A	0,2	1250	12	6,6	1,484	R	L	❩	1	++++	++
GENOMER* 3486	Polyester Acrylate	4	3 G	8	500	20	8,2	1,465	R	L	L	1	++	++
GENOMER* 3497	Polyether Acrylate	4	20 A	0,5	600	2	6,5	1,479	R	L	L	1	+++	+++
GENOMER* 3498	Polyether Acrylate	4	20 A	0,1	600	-3	7,2	1,479	R	L	L	1	+++	++++
GENOMER* 3611	Polyester Acrylate	6	10 G	8	8000	7	7,4	1,490	R	L	N	1	+++	+
GENOMER* 3650	Polyester Acrylate	6	10 G	6	6000	22	8,4	1,491	R	L	L	1	+++	+

Properties				Applications	Key Features
Hardness	Chemical Resistance	Adhesion	Pigment Wetting	Digital Inks = DIG; Offset Inks = OFF; Flexo inks = FLE; Screen Inks = SCR; Overprint Varnishes = OPV; Wood Coatings = WOC; Composites = COM; Electronics = ELE; Adhesives = ADH; Coatings on Plastics = PLA; 3D Printing = 3DP	
++	++++	+++		DIG, FLE, SCR, OPV, WOC, ADH, PLA, 3DP	High reactivity, very low viscosity, excellent chemical and stain resistance
++++	++++	+		OFF, FLE, SCR, OPV, WOC, COM, ADH, PLA	Excellent reactivity, high scratch and chemical resistance
+	++++	++++		FLE, SCR, OPV, WOC, ADH, PLA, 3DP	High reactivity, high flexibility, medium viscosity, good adhesion on plastics
++++	++++	++	•	OFF, FLE, SCR, OPV, WOC, ADH, PLA	Good pigment wetting and offset properties, medium viscosity, good reactivity
++++	++++	+		OFF, FLE, SCR, OPV, WOC, COM, ADH, PLA, 3DP	Excellent reactivity, high scratch and chemical resistance
++++	++++	++		OFF, FLE, SCR, OPV, WOC, COM, ADH, PLA	Excellent balance of properties, high reactivity, hardness, flexibility and toughness
++++	++++	+++	•	OFF, FLE, SCR, OPV, WOC, COM, ADH, PLA, 3DP	Excellent balance of properties, high reactivity, hardness, flexibility, toughness, adhesion and pigment wetting and flow
++	++++	+++	•	OFF, FLE, SCR, OPV, WOC	Excellent flexibility, low shrinkage, excellent pigment wetting

Properties				Applications	Key Features
Hardness	Chemical Resist-ance	Adhesion	Pigment Wetting	Digital Inks = DIG; Offset Inks = OFF; Flexo inks = FLE; Screen Inks = SCR; Overprint Varnishes = OPV; Wood Coatings = WOC; Composites = COM; Electronics = ELE; Adhesives = ADH; Coatings on Plastics = PLA; 3D Printing = 3DP	
+	+	++		DIG, FLE, SCR, OPV, WOC, ADH, 3DP	Bio-based Polyester Acrylate, low viscosity, high flexibility, high elongation, excellent clarity, good adhesion
++	+	++		FLE, SCR, WOC, ADH, PLA, 3DP	Thermoplastic-like behaviour, high transparency and clarity, low yellowing, partly water solubility after curing
++	+++	++		OFF, FLE, SCR, OPV, WOC, ADH, PLA	Good reactivity, good abrasion and chemical resistance, good overall properties
+++	++++	++		DIG, FLE, SCR, OPV, WOC, ADH, PLA, 3DP	High reactivity, low viscosity, good solvent resistance
+++	++++	++		DIG, FLE, SCR, OPV, WOC, ADH, PLA, 3DP	<0,1% TMPTA, high reactivity, low viscosity, good solvent resistance
++	++++	+++		DIG, FLE, SCR, OPV, WOC, ADH, PLA, 3DP	High reactivity, low viscosity, good solvent and scratch resistance, flexibility and adhesion, low Tg
++	++++	+++	•	DIG, FLE, SCR, OPV, WOC, PLA	High reactivity in LED formulations, good flexibility, low yellowing, good adhesion
+++	++++	++		FLE, SCR, OPV, WOC, ADH, PLA, 3DP	High reactivity, high hardness, chemical resistance and adhesion
+++	++++	+++	•	FLE, SCR, OPV, WOC, ADH, PLA, 3DP	low viscosity, good surface hardness, chemical resistance, adhesion and pigment wetting
++	++++	++		DIG, FLE, SCR, OPV, WOC, ADH, PLA, 3DP	High reactivity, low viscosity, good solvent resistance.
++	++++	++		DIG, FLE, SCR, OPV, WOC, ADH, PLA, 3DP	High reactivity, low viscosity, good solvent resistance, <0.1% TMPTA
++++	++++	+++	•	OFF, FLE, SCR	High reactivity, very good pigment wetting and lithographic behavior
++++	++++	+++	•	OFF, FLE, SCR	Excellent pigment wetting, high reactivity and good lithographic behavior

Urethane Acrylates

Product	Product Data (Typical Values)								HS & Registration					
	Description	Functionality	Color	Acid Value (mg KOH/g)	Viscosity (mPa.s at 25 °C)	Tg (°C)	Shrinkage %	Refractive Index	REACH-Status	Active TSCA inventory	IECSC-Status	Swiss Ordinance-Status	Reactivity	Flexibility
GENOMER* 4188/EHA	Aliphatic UA	1	100 A	5	120 000	-14	n/a	1,480	R	L	❩	1	+	++++
GENOMER* 4212	Aliphatic UA	2	1 G	2	14000	-7	1,1	1,486	R	L	❩	1	+	++++
GENOMER* 4215	Aliphatic UA	2	2 G	1	20 000 (60°C/140°F)	-22	2,9	1,497	R	L	L	1	+++	++++
GENOMER* 4217	Aromatic UA	2	1 G	3	100 000	-36	1,8	1,490	R	L	L	1	++	++++
GENOMER* 4230	Aliphatic UA	2	40 A	2	35 000	-53	<1	1,460	R	L	L	1	+	++++
GENOMER* 4259	Aliphatic UA	2	20 A	1	11 000	85	7,0	1,489	R	L	N	1	++	+
GENOMER* 4267	Aliphatic UA	2	1 G	4	16 000 (60°C/140°F)	-10	2,3	1,490	R	L	L	1	++	++++
GENOMER* 4269/M22	Aliphatic UA	2	1 G	3	55 000	-13	n/a	1,479	R	L	L	1	+	++++
GENOMER* 4281	Aliphatic UA	2	100 A	–	100 000	51	4,8	1,471	R	❩	❩	1	++	++
GENOMER* 4293	Aliphatic UA	2	27 A	2	25 000 (60°C/140°F)	67	4,7	1,473	R	L	❩	1	++	++
GENOMER* 4302	Iso-cyanurate	3	80 A	1	10 000 (60°C/140°F)	90	4,7	1,509	R	L	N	1	+++	++++
GENOMER* 4312	Aliphatic UA	3	1 G	1	60 000	32	4,7	1,497	R	L	L	1	+++	++++
GENOMER* 4312TF◊	Aliphatic UA	3	1 G	1	60 000	34	4,6	1,497	R	L	L	1	+++	++++
GENOMER* 4316	Aliphatic UA	3	1 G	1	58 000	7	2,5	1,493	R	L	L	1	+++	++++
GENOMER* 4335	Aliphatic UA hydroxy functional	3	1 G	1	50 000	17	5,2	1,491	R	L	❩	1	+++	++
GENOMER* 4337	Aliphatic UA	3	20 A	2	7000 (60°C/140°F)	87	4,8	1,4909	R	L	L	1	++	++++
GENOMER* 4383/W	Aliphatic UA Dispersion	3	–	1	30	74	n/a	–	R	L	N	1	++	++
GENOMER* 4425	Aliphatic UA	4	1 G	5	4500	18	5,7	1,478	R	L	❩	1	+++	++
GENOMER* 4515	Aromatic UA	5	3 G	1	1300	–	6,6	1,485	R	L	L	1	++++	+
GENOMER* 4590/PP	Aliphatic UA	5	2 G	1	11 000	42	11,8	1,491	R	L	N	1	+++	+
GENOMER* 4622	Aromatic UA	6	2 G	3	30 000	55	10,3	1,510	R	L	L	1	++++	+
GENOMER* 4690	Aliphatic UA	6	1 G	1	80 000	55	7,7	1,497	N	L	L	1	+++	+
GENOMER* 4691	Aliphatic UA	6	1 G	1	100 000	55	8,5	1,497	R	L	L	1	+++	+

Available dilutions: GENOMER* 4188/M22, GENOMER* 4215/M22.
◊ tin free (free of intentionally added tin compounds)

Properties				Applications	Key Features
Hardness	Chemical Resistance	Adhesion	Pigment Wetting		
				Digital Inks = DIG; Offset Inks = OFF; Flexo inks = FLE; Screen Inks = SCR; Overprint Varnishes = OPV; Wood Coatings = WOC; Composites = COM; Electronics = ELE; Adhesives = ADH; Coatings on Plastics = PLA; 3D Printing = 3DP	
+	+	++++		ADH, SCR, PLA	High tack, high elongation and excellent adhesion
+	+++	+++		FLE, SCR, OPV, WOC, ADH, PLA	Good flexibility, low viscosity, low yellowing, good adhesion
+	+++	++++		DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Good adhesion to PVC and other plastics
+	++	+++		OFF, SCR, OPV, WOC, COM, ELE, ADH, PLA	Excellent flexibility, good adhesion to difficult substrates, good for metallic inks
+	+	+++		OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Good flexibility, non yellowing, peroxide cure
++++	++++	++		DIG, COM, ELE, PLA, 3DP	Provides exceptional hardness and toughness, low viscosity, low color
++	+++	++++		OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Excellent flexibility and toughness, good adhesion
+	+	++++		OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Flexibilizer resin, good toughness, high flexibility, excellent adhesion
++++	++++	++		OFF, FLE, SCR, OPV, WOC, ADH, PLA, 3DP	High Hardness, high scratch and abrasion resistance, low yellowing, exceptional clarity, good adhesion
++++	++++	++		OFF, FLE, SCR, OPV, WOC, ADH, PLA, 3DP	Thermoplastic-like behavior, shows shape-memory effect after curing, outstanding hardness, scratch and abrasion resistance, high transparency and clarity
++++	++++	+++		OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	Fast, hard and excellent chemical resistance, non yellowing, high E-modulus
++	+++	+++		OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	High reactivity and good flexibility, good adhesion, abrasion and scratch resistance
++	+++	+++		OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	High reactivity and good flexibility, good adhesion, abrasion and scratch resistance, tin free
++	++	+++		OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	High reactivity and very good flexibility, good adhesion, abrasion and scratch resistance
++++	++++	++		SCR, WOC, PLA	Dual curable OH and acrylate groups with outstanding chemical resistance and hardness
+++	++++	+++		OPV, WOC, COM, PLA, 3DP	High stain resistance, excellent chemical resistance, exceptional wet-heat resistance, thermoformable, high abrasion resistance, good adhesion, outdoor durability
+++	+++	+++		SCR, WOC, PLA	Water-based dispersion, sandable after physical drying
+++	++++	+++		OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	High reactivity, low viscosity, balance of flexibility and good hardness
+++	++++	++		DIG, FLE, SCR, OPV, WOC, PLA	High reactivity in LED formulations, good hardness and toughness
++++	++++	++		OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	Low viscosity, excellent reactivity and hardness
++++	++++	++		DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Very fast with good hardness and chemical resistance
++++	++++	++		OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Outstanding hardness, scratch and abrasion resistance and low yellowing
++++	++++	++		OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Outstanding hardness, scratch and abrasion resistance and low yellowing

Oligoamines

Product	Product Data (Typical Values)								HS & Registration					
	Description	Functionality	Color	Amine Value (mg KOH/g)	Viscosity (mPa.s at 25 °C)	Tg (°C)	Shrinkage %	Refractive Index	REACH-Status	Active TSCA inventory	IECSC-Status	Swiss Ordinance-Status	Reactivity	Flexibility
GENOMER* 5142	Acrylated Amine Synergist	<1	2 G	220	20	–	n/a	1,450	R	L	L	1	n/a	n/a
GENOMER* 5161	Acrylated Amine Synergist	<1	2 G	230	80	–	n/a	1,470	R	L	N	1	n/a	n/a
GENOMER* 5271	Amine Acrylate	2	2 G	140	1200	-48	n/a	1,482	R	L	L	1	++++	++++
GENOMER* 5275	Amine Acrylate	2	1 G	150	3700	-48	n/a	1,486	R	L	L	1	++++	++++
GENOMER* 5695	Acrylated Oligoamine	6	1 G	85	8000	-27	4,3	1,489	R	L	❩	1	++++	++++

Co-Resins

Product	Product Data (Typical Values)								HS & Registration					
	Description	Functionality	Color	Acid Value (mg KOH/g)	Viscosity (mPa.s at 25 °C)	Tg (°C)	Shrinkage %	Refractive Index	REACH-Status	Active TSCA inventory	IECSC-Status	Swiss Ordinance-Status	Reactivity	Flexibility
GENOMER* 6043/M22	Modified Polyester Resin	n/a	1 G	5	30 000	-14	n/a	1,495	R	L	L	1	+	++++
GENOMER* 6050/TM	Modified Polyester Resin	n/a	2 G	4	125 000	19	4,8	1,508	R	L	L	1	++	++++
GENOMER* 6058	Sucrose Benzoate	n/a	30 A	0,3	–	68	n/a	1,577	R	L	L	1	+	+
GENOMER* 6083/HD	Inert Resin	n/a	2 G	2	110 000	51	6,2	1,485	R	L	L	1	+	++

Available dilutions: GENOMER* 6050/GP, GENOMER* 6083/TP, GENOMER* 6083/ETM

Properties				Applications				Key Features
Hardness	Chemical Resistance	Adhesion	Pigment Wetting	Digital Inks = DIG Offset Inks = OFF Flexo inks = FLE Screen Inks = SCR Overprint Varnishes = OPV Wood Coatings = WOC		Composites = COM Electronics = ELE Adhesives = ADH Coatings on Plastics = PLA 3D Printing = 3DP		
n/a	n/a	n/a		DIG, FLE, SCR, OPV, WOC, ADH, PLA				Improves cure speed and surface cure. Low viscosity, high amine value, excellent compatibility
n/a	n/a	n/a		DIG, FLE, SCR, OPV, WOC, ADH, PLA				Improves cure speed and surface cure. Low viscosity, high amine value, excellent compatibility
++	+	++++		FLE, SCR, OPV, WOC, ADH, PLA				Excellent surface cure, low odor, excellent adhesion and low viscosity
++	+	++++		DIG, FLE, SCR, OPV, WOC, ADH, PLA				Excellent surface cure, low odor, excellent adhesion
++	++	++++		FLE, SCR, OPV, WOC, ADH, PLA, 3DP				High reactivity in LED formulations, good surface cure, good adhesion, low yellowing

Properties				Applications				Key Features
Hardness	Chemical Resistance	Adhesion	Pigment Wetting	Digital Inks = DIG Offset Inks = OFF Flexo inks = FLE Screen Inks = SCR Overprint Varnishes = OPV Wood Coatings = WOC		Composites = COM Electronics = ELE Adhesives = ADH Coatings on Plastics = PLA 3D Printing = 3DP		
+	+	++++		SCR, ADH				Flexibilizer resin for PSA, low yellowing, excellent adhesion
++	+	++++	•	OFF, FLE, SCR, OPV, ADH, PLA				Excellent adhesion on plastics, good offset behavior
+++	+	++		OFF, FLE, SCR, OPV, WOC, ADH, PLA				Maintains gloss compared with inorganic fillers, good adhesion on plastics
+++	++	++++	•	SCR, OPV, WOC, ADH, PLA				Excellent adhesion on plastics, pigment wetting, high Tg

Specialities

Product	Product Data (Typical Values)								HS & Registration					
	Description	Functionality	Color	Acid Value (mg KOH/g)	Viscosity (mPa.s at 25 °C)	Tg (°C)	Shrinkage %	Refractive Index	REACH-Status	Active TSCA inventory	IECSC-Status	Swiss Ordinance-Status	Reactivity	Flexibility
ACMO	Acryloyl Morpholine	1	10 A	–	12	145	10,1	1,512	R	L/ SNUR	L	1	n/a	n/a
GENOMER* 7151	Carboxyfunctional Polyester Acrylate	1	2 G	210	7000	37	5,6	1,530	N	L	L	1	++	+
GENOMER* 7287	Speciality Resin	2	40 A	2	12	-28	8,7	1,457	R	L	L	1	++	+++
GENOMER* 7302	Speciality Resin	3	1 G	3	110	31	8,4	1,486	R	L	L	2	+++	++
GENOMER* 7311	Water Soluble Acrylate Resin	3	40 A	0,2	1200	-40	3,4	1,477	R	L	L	1	+++	++++
DMAA	Dimethyl Acrylamide	1	80 A	–	1	110	n/a	1,472	R	L	L	1	+++	++
VEEA	2-(2Vinyloxyethoxy) Ethyl Acrylate	1	20 A	0,1	4	39	n/a	1.453	R	L	L	1	+++	++

Additives

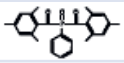
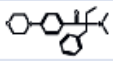
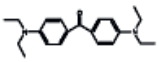
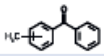
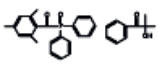
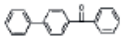
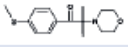
Product	Product Data (Typical Values)				HS & Registration				Properties			
	Description	Color	Acid Value (mg KOH/g)	Viscosity (mPa.s at 25 °C)	REACH-Status	Active TSCA inventory	IECSC-Status	Swiss Ordinance-Status	Retain Reactivity	Retain Color	Retain Viscosity	Adhesion
GENORAD* 16	In-can Stabilizer	3 G	15	1200	R	L	L	1	•		•	
GENORAD* 18	In-can Stabilizer	4 G	7	2000	R	L	L	1	•		•	
GENORAD* 20	In-can Stabilizer	1 G	2	1000	R	L	L	1	•	•	•	
GENORAD* 21	In-can Stabilizer	10 G	–	2000	R	L	L	1	•		•	
GENORAD* 22	In-can Stabilizer	2 G	30	20	R	L	L	2	•		•	
GENORAD* 23	In-can Stabilizer	6 G	2	140	R	L	L	1	•		•	
GENORAD* 24	In-can Stabilizer	dark	0,2	3500	R	L	)	1	•		•	
GENORAD* 26	In-can Stabilizer	4 G	13	120	R	L	L	1	•		•	
GENORAD* 40	Adhesion Promoter	100 A	295	2000	R	L	L	1				•
GENORAD* 41	Adhesion Promoter	100 A	290	1500	N	L	L	1				•

Properties				Applications	Key Features
Hardness	Chemical Resistance	Adhesion	Pigment Wetting		
n/a	n/a	++++		DIG, FLE, SCR, WOC, ELE, ADH, PLA, 3DP	Very high Tg, water soluble, good thermal stability, good adhesion
+++	+	++++		SCR, WOC, ELE, ADH	Good adhesion on metal and glass
++	++++	+++		DIG, FLE, SCR, OPV, WOC, PLA	Provides superior matting properties, low viscosity and reasonable reactivity, easy incorporation of matting agent
n/a	n/a	++		OPV, WOC, ELE, ADH, PLA, 3DP	Low oxygen inhibition, enhanced surface cure, UV LED, low viscosity, low odor
++	+	+++		FLE, SCR, OPV, ADH, PLA, 3DP	Water solubility, good reactivity, excellent flexibility, high gloss and low yellowing
n/a	n/a	++		DIG, SCR, ELE, ADH, PLA, 3DP	Low viscosity, very good optical clarity, water soluble and very good moisture vapor transition rate. Very good oxygen penetration and water holding capacity
n/a	n/a	++		DIG, FLE, SCR, OPV, WOC, 3DP	Low viscosity, high reactivity, excellent dilution performances, good adhesion, cationic/free radical polymerization

Applications: Digital Inks = DIG; Offset Inks = OFF; Flexo inks = FLE; Screen Inks = SCR; Overprint Varnishes = OPV; Wood Coatings = WOC; Composites = COM; Electronics = ELE; Adhesives = ADH; Coatings on Plastics = PLA; 3D Printing = 3DP

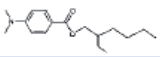
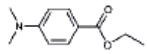
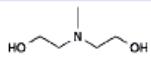
Applications	Key Features
DIG, OFF, FLE, SCR, WOC, ELE	Highest performance stabilizer for grinding and storage, works anaerobically, no effect on reactivity
OFF, FLE, SCR, WOC, ELE	High performance stabilizer for grinding and storage, works anaerobically, no effect on reactivity
DIG, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Excellent stabilizer in clear coatings
DIG, OFF, FLE, SCR, ELE	In-can stabilizer for UV-curable metallic inks
DIG, OFF, FLE, SCR, WOC, ELE	Premium stabilizer for grinding and storage, works anaerobically, no effect on reactivity, especially suitable for UV inkjet inks
DIG, OFF, FLE, SCR, WOC, ELE, ADH	Excellent all-purpose in-can stabilizer, acts as a polymerization inhibitor and improves shelf-life of UV curable formulations.
DIG, OFF, FLE, SCR, WOC, ELE, 3DP	High molecular weight in-can stabilizer. Excellent efficiency in UV LED and other free radical systems.
DIG, OFF, FLE, SCR, WOC, ELE	Premium stabilizer for grinding and storage, works anaerobically, no effect on reactivity, BPA free
FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	Adhesion promoter on metal, glass and plastics
FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	Adhesion promoter on metal, glass and plastics

Photoinitiators

Product	Product Data (Typical Values)						HS & Reg	
	Description	Purity (%)	Melting Point °C (Viscosity [mPa.s at 25 °C])	Melting Point °F (Viscosity [mPa.s at 77 °F])	Absorption (nm)	Structure	REACH-Status	Active TSCA inventory
GENOCURE* BAPO	Phenylbis (2,4,6-trimethylbenzoyl) phosphine oxide	≥ 98	127-132	260-269	292/370		R	L
GENOCURE* BDK	Benzildimethylketal	> 99.5	66	151	252		R	L
GENOCURE* BDMM	2-Benzyl-2-dimethylamino-1-(4-morpholinophenyl)-butanone-1	> 98.0	110-123	230-244	230/325		R	L
GENOCURE* BMS	4-Benzoyl- 4'methyldiphenylsulphid	> 98.0	75-85	167-185	246/315	–	R	L
GENOCURE* BP	Benzophenone	> 99.0	47-49	117-120	254		R	L
GENOCURE* CPK	1-Hydroxycyclohexylphenylketone	> 99.0	48	118	247		R	L
GENOCURE* DEAP	2,2 Diethoxyacetophenone	> 95.0	(~7)	(~7)	210/250		N	L
GENOCURE* DETX	2,4 Diethylthioxanthone	> 98.0	72	162	261/384		R	L/ SNUR
GENOCURE* DMHA	Dimethylhydroxyacetophenone	> 98.0	4	39	247/277		R	L
GENOCURE* EMK	4,4-Bis (diethylamino) benzophenone	> 99.0	92-96	197-204	205/375		N	L
GENOCURE* ITX	Isopropylthioxanthone	> 98.0	74-76	165-169	259/383		R	L
GENOCURE* LBC	1-Hydroxycyclohexylphenylketone and Benzophenone	> 98.0	–	–	250/330		R	L
GENOCURE* LBP	4-Methylbenzophenone and Benzophenone	> 99.0	(~90)	(~90)	257		N	L
GENOCURE* LRT	Liquid Photoinitiatorblend	–	(~200)	(~200)	253/370	–	R	L
GENOCURE* LTD	2,4,6 Trimethylbenzoyldiphenylphosphine oxide Dimethylhydroxyacetophenone	> 98.0	–	–	240/272/ 367		R	L
GENOCURE* LTM	Liquid Photoinitiatorblend	> 97.0	(~20)	(~20)	253/368	–	R	L
GENOCURE* MBB	Methyl-o-benzoyl-benzoate	> 99.0	50-52	122-126	246		ↄ	L
GENOCURE* MBF	Methylbenzoylformate	> 97.0	(~5)	(~5)	257		R	L
GENOCURE* PBZ	4-Phenylbenzophenone	> 99.0	99-103	210-217	295		N	L
GENOCURE* PMP	2-Methyl-1-(4-methylthiophenyl)-2-morpholinpropan-1-one	> 99.0	74-76	165-169	307		R	L
GENOCURE* TPO	2,4,6-Trimethylbenzoyldiphenylphosphine oxide	> 99.0	92-94	198-201	380		R	L
GENOCURE* TPO-L	Ethyl(2,4,6-trimethylbenzoyl) phenylphosphinate	> 98.0	–	–	370/275		R	L

gistration		Applications	Key Features
IECSC-Status	Swiss Ordinance-Status	Digital Inks = DIG; Offset Inks = OFF; Flexo inks = FLE; Screen Inks = SCR; Overprint Varnishes = OPV; Wood Coatings = WOC; Composites = COM; Electronics = ELE; Adhesives = ADH; Coatings on Plastics = PLA; 3D Printing = 3DP	
L	1	DIG, OFF, FLE, SCR, OVP, WOC, COM, ELE, ADH, PLA, 3DP	Shows excellent through cure in pigmented systems, low odor
L	1	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	General purpose where non yellowing not essential
L	1	DIG, OFF, FLE, SCR, OPV, COM, ELE, ADH, PLA	Excellent through cure in dark color pigmented systems. Combinations with other photoinitiators
L	1	DIG, OFF, FLE, SCR, OPV, WOC, ELE, ADH, PLA, 3DP	High reactivity, good solubility, LED curing 365nm, for pigmented systems in combination with amine synergists and thioxanthones
L	1	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	General purpose, low cost
L	1	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Low yellowing
L	1	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Non yellowing, insoluble in water
L	1	DIG, OFF, FLE, SCR, WOC, 3DP	Pigmented systems in combination with amines and e.g. GENOCURE* BDMM
L	1	DIG, OPV, FLE, SCR, WOC, ELE, ADH, PLA	Low yellowing, liquid
L	2	DIG, OFF, FLE, SCR, OPV, WOC, PLA, 3DP	Excellent efficacy in pigmented systems, has Type II photoinitiator and alkyl amine functionality. Usable in UV/LED systems
L	1	DIG, OFF, FLE, SCR, WOC, COM, ELE, 3DP	Pigmented systems in combination with amines and e.g. GENOCURE* BDMM
L	1	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	Liquid with good balance of surface and through cure for clear coatings
L	1	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	General purpose, liquid
L	1	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, 3DP	Liquid, white and thick coatings, non yellowing, can replace TPO
L	1	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Liquid photoinitiator for non yellowing clear and white pigmented systems
L	1	DIG, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	White and thick coatings, liquid with good balance of surface and through cure, non yellowing
L	1	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	Good surface cure
L	1	DIG, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA	Clear coatings, excellent surface curing photoinitiator especially in amine-free systems, low odor
L	2	DIG, OFF, FLE, SCR, OPV, WOC, ELE, ADH	High reactivity, low odor
L	2	DIG, OFF, FLE, SCR, OPV, COM, ELE, ADH	Pigmented systems in combination with other photoinitiators
L	1	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	White and thick coatings, non yellowing
L	1	DIG, OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA, 3DP	Liquid, white and thick coatings, non yellowing

Synergists

Product	Product Data (Typical Values)						HS & Reg	
	Description	Purity (%)	Melting Point °C (Viscosity [mPa.s at 25 °C])	Melting Point °F (Viscosity [mPa.s at 77 °F])	Absorption (nm)	Structure	REACH-Status	Active TSCA inventory
GENOCURE* ABD	Aminobenzoate Derivative	> 99	(~13 000)	(~13 000)	228/310	–	R	L
GENOCURE* EHA	2-Ethylhexyl-4-dimethylaminobenzoate	> 99.0	(~80)	(~80)	228/311		N	L
GENOCURE* EPD	Ethyl-4-dimethylaminobenzoate	> 99.0	63	142	228/310		R	L
GENOCURE* MDEA▲	N-Methyldiethanolamine	> 99.0	(~100)	(~100)	220		N	L

▲GENOCURE* MDEA – subject to chemical weapons convention

Polymeric Photoinitiators

Product	Product Data (Typical Values)				HS & Reg	
	Description	Viscosity (mPa.s at 25 °C)	Molecular Weight (g/mol)	Absorption (nm)	REACH-Status	Active TSCA inventory
GENOPOL* AB-2	Polymeric Aminobenzoate Derivative	15 000	900	228, 310	R	L
GENOPOL* BP-2	Polymeric Benzophenone Derivative	120 000	980	245, 325	R	L
GENOPOL* TX-2	Polymeric Thioxanthone Derivative	160 000	820	225, 310, 375	R	L

Registration		Applications				Key Features
IECSC-Status	Swiss Ordinance-Status	Digital Inks = DIG Offset Inks = OFF Flexo inks = FLE Screen Inks = SCR Overprint Varnishes = OPV Wood Coatings = WOC		Composites = COM Electronics = ELE Adhesives = ADH Coatings on Plastics = PLA 3D Printing = 3DP		
D	1	DIG, OFF, FLE, SCR, OPV, COM, ELE, ADH				Water insoluble synergist suited for litho systems, liquid
L	1	OFF, FLE, SCR, COM, ELE, ADH				Water insoluble synergist suited for litho systems, liquid
L	1	OFF, FLE, SCR, COM, ELE, ADH				Water insoluble synergist suited for litho systems
L	1	FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA				Low cost amine synergist

Registration		Applications				Key Features
IECSC-Status	Swiss Ordinance-Status	Digital Inks = DIG Offset Inks = OFF Flexo inks = FLE Screen Inks = SCR Overprint Varnishes = OPV Wood Coatings = WOC		Composites = COM Electronics = ELE Adhesives = ADH Coatings on Plastics = PLA 3D Printing = 3DP		
D	1	OFF, FLE, SCR, OPV, COM, ELE, ADH				Low migration and odor, excellent compatibility in UV formulations
D	1	OFF, FLE, SCR, OPV, WOC, COM, ELE, ADH, PLA				Low migration and odor, excellent compatibility in UV formulations
D	1	DIG, OFF, FLE, SCR, COM, ELE				Low migration and odor, excellent compatibility in UV formulations

Dental & Cosmetic Products

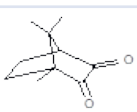
We are promoting these products for use in energy curable medical and cosmetics application formulations. It is the responsibility of the formulator to check the suitability of these products for the intended medical and cosmetic application, including but not limited to, all relevant restrictions and approvals of the local governing bodies for the intended medical application. RAHN in no way war-rants that these products have any approvals for use in any of the possible medical applications that might be considered.

Methacrylates

Product	Product Data (Typical Values)								HS & Registration				
	Description	Functionality	Color	Acid Value (mg KOH/g)	Viscosity (mPa.s at 25 °C)	Tg (°C)	Shrinkage %	Refractive Index	REACH-Status	Active TSCA inventory	IECSC-Status	Swiss Ordinance-Status	Reactivity
Epoxy Methacrylates													
GENOMER* 2297	Epoxy Methacrylate	2	1 G	–	4 500 (60°C/140°F)	114	3,8	1,551	R	L	L	1	+
Urethane Methacrylates													
GENOMER* 4205	Aliphatic Urethane Methacrylate	2	25 A	–	9 000	99	6,7	1,483	R	L	L	1	+
GENOMER* 4247◊	Aliphatic Urethane Methacrylate	2	25 A	–	10 000	134	7,1	1,484	R	L	L	2	+
GENOMER* 4256	Aliphatic Urethane Methacrylate	2	1 G	–	15 000▲	-17	<1	1,487	R	L	L	1	+
GENOMER* 4270	Urethane Methacrylate	2	15 A	1	6000 (60°C/140°F)	35	3	1,484	R	L	❍	1	+
GENOMER* 4277	Aliphatic Urethane Methacrylate	2	1 G	–	19 000 (60°C/140°F)	8	3,6	1,491	R	L	❍	1	+
GENOMER* 4297	Aliphatic Urethane Methacrylate	2	20 A	–	8 700	130	6,8	1,485	R	L	L	2	+
GENOMER* 4365	Aliphatic Urethane Methacrylate	3	1 G	1	20 000 (60°C 140°F)	112	4,4	1,505	R	❍	❍	1	+
Specialities													
GENOMER* 7244	Modified Methacrylate	2	1G	5	15000	130	6,7	1,535	R	L	L	1	+

▲diluted in 20% Toluene for measuring purposes only ◊tin free (free of intentionally added tin compounds)

Initiators

Product	Product Data (Typical Values)							HS & Registration	
	Description	Purity (%)	Melting Point °C (Viscosity [mPa.s at 25 °C])	Melting Point °F (Viscosity [mPa.s at 77 °F])	Molecular Weight (g/mol)	Absorption (nm)	Structure	REACH-Status	Active TSCA inventory
GENOCURE* CQ	Camphorquinone	> 99,0	201-203	393-397	166	470		❍	L

Properties					Applications	Key Features
Flexibility	Hardness	Chemical Resistance	Adhesion	Pigment Wetting	Dental & Cosmetics = DNC Adhesives = ADH 3D Printing = 3DP	
+	++++	++++	+++		DNC, 3DP	Very low shrinkage, provides excellent hardness as well as abrasion and scratch resistance
+	++++	++++	++		DNC, ADH, 3DP	High E-modulus and good tensile strength, other characteristics are its light stability, abrasion and chemical resistance
+	++++	++++	++		DNC, ADH, 3DP	Exceptional hardness and mechanical properties, high scratch and abrasion resistance, highest transparency and clarity, high gloss, low yellowing, tin free
++++	+	+	+++		DNC, ADH, 3DP	Excellent elasticity and elongation, improves light stability and chemical resistance
++++	+	+	+		ADH, 3DP, DNC	Excellent rebound properties, high toughness, optimal elongation / Tg ratio, low yellowing, low shrinkage and good adhesion
++++	+++	+++	++++		DNC, ADH, 3DP	High flexibility and toughness, high transparency and low yellowing, good adhesion, low cure exotherm
+	++++	++++	++		DNC, ADH, 3DP	Good stain and chemical resistance as well as high tensile strength and E-modulus, good abrasion resistance and very low yellowing
+++	++++	++++	+++		DNC, ADH, 3DP	Very high hardness and E-modulus, high abrasion resistance, excellent solvent resistance
+	++++	++++	+++		DNC, 3DP	High E-modulus and good tensile strength giving excellent rigidity to 3D parts. Good adhesion, abrasion and scratch resistance

HS & Registration			Applications	Key Features
IECSC-Status	Swiss Ordinance-Status		Dental & Cosmetics = DNC Electronics = ELE Adhesives = ADH 3D Printing = 3DP	
L	1		ELE, ADH, DNC, 3DP	Provides good through cure in long wavelength (visible) UV light, soluble in alcohol, ketones, acrylates and methacrylates

MECHANICAL DATA

Product	Product Data (Typical Values)							
	Description	E-Modulus		Tensile Strength		Elongation at Break	Shore Hardness	Tg
		MPa	psi	MPa	psi	%		(°C)
Epoxy Acrylates								
GENOMER* 2235	Aliphatic Epoxy Acrylate	2 420	350 400	40	5 800	3	D83	45
GENOMER* 2252	Epoxy Acrylate	4 730	686 000	44	6 300	1	D86	105
GENOMER* 2253	Modified Epoxy Acrylate	50	7100	7	1 100	17	D66	-1
GENOMER* 2259	Modified Epoxy Acrylate	3 000	435 800	45	6 600	2	D84	85
GENOMER* 2263	Epoxy Acrylate	5 210	756 200	44	6 300	1	D88	99
GENOMER* 2280	Modified Epoxy Acrylate	4 320	626 700	73	10 600	3	D85	62
GENOMER* 2281	Modified Epoxy Acrylate	4 370	633 100	76	11 000	3	D85	66
GENOMER* 2297	Epoxy Methacrylate	4 830	701 100	65	9 400	2	D89	114
GENOMER* 2312	Epoxidized Soy Oil Acrylate	50	6 900	4	500	7	D52	-12
Polyester/Polyether Acrylates								
GENOMER* 3135	Polyester Acrylate	30	5 000	2	300	250	D55	16
GENOMER* 3143	Polyether Acrylate	1 130	163 600	6	900	<1	D79	28
GENOMER* 3303	Polyester Acrylate	510	74 400	22	3 200	11	D79	19
GENOMER* 3364	Polyether Acrylate	1 150	166 400	23	3 300	3	D81	26
GENOMER* 3365	Polyether Acrylate	1 040	150 800	18	2 600	3	D77	23
GENOMER* 3414	Polyether Acrylate	70	9 400	5	700	7	D61	-14
GENOMER* 3430	Polyether Acrylate	60	8 100	3	500	4	D57	-6
GENOMER* 3457	Polyether Acrylate	1 230	178 100	20	2 900	2	D81	12
GENOMER* 3486	Polyester Acrylate	1 130	163 500	23	3 300	3	D80	20
GENOMER* 3497	Polyether Acrylate	420	61 000	14	2 100	5	D76	2
GENOMER* 3498	Polyether Acrylate	150	21 300	7	1 100	5	D67	-3
GENOMER* 3611	Polyester Acrylate	1 270	184 300	22	3 200	2	D84	7
GENOMER* 3650	Polyester Acrylate	940	136 300	8	1 160	1	D84	22
Urethane (Meth)Acrylate								
GENOMER* 4188/EHA	Aliphatic Urethane Acrylate	<10	<100	<1	<100	360	OO83	-14
GENOMER* 4205	Aliphatic Urethane Methacrylate	3 620	525 700	68	9 900	3	D86	99
GENOMER* 4212	Aliphatic Urethane Acrylate	10	1 900	3	400	24	A84	-7
GENOMER* 4215	Aliphatic Urethane Acrylate	120	17 700	11	1 600	23	D59	-22
GENOMER* 4217	Aromatic Urethane Acrylate	20	2 200	3	400	21	A88	-36
GENOMER* 4230	Aliphatic Urethane Acrylate	<10	400	<1	100	30	A57	-53
GENOMER* 4247	Aliphatic Urethane Methacrylate	3 420	496 000	60	8 700	2	D89	134
GENOMER* 4256	Aliphatic Urethane Methacrylate	<10	<100	<1	<100	90	OO85	-17

Test Methods
Elongation, Tensile Strength and E-Modulus: ASTM D638 – 14; DIN EN ISO 527-1
Shore Hardness: ASTM D2240; DIN ISO 7619
Tg measured by DSC

Product	Product Data (Typical Values)							
	Description	E-Modulus		Tensile Strength		Elongation at Break	Shore Hardness	Tg
		MPa	psi	MPa	psi	%		(°C)
GENOMER* 4259	Aliphatic Urethane Acrylate	3 340	484 400	68	9 900	3	D87	85
GENOMER* 4267	Aliphatic Urethane Acrylate	110	15 500	11	1600	32	D57	-10
GENOMER* 4269/M22	Aliphatic Urethane Acrylate	<10	<100	<1	<100	87	OO78	-13
GENOMER* 4270	Urethane Methacrylate	52	7540	7.7	1110	36	D41 / A93	35
GENOMER* 4277	Aliphatic Urethane Methacrylate	350	51 300	21	3 000	34	D74	8
GENOMER* 4281	Aliphatic Urethane Acrlyate	2 590	375 600	70	11 300	3	D85	51
GENOMER* 4293	Aliphatic Urethane Acrylate	3 870	561 300	78	11 300	3	D86	67
GENOMER* 4297	Aliphatic Urethane Methacrylate	3 670	532 300	59	8 600	2	D89	130
GENOMER* 4302	Isocyanurate	2 780	403 200	68	9 800	3	D86	90
GENOMER* 4312	Aliphatic Urethane Acrylate	720	104 700	22	3 200	15	D76	32
GENOMER* 4312TF	Aliphatic Urethane Acrylate	970	140 700	24	3 500	13	D77	34
GENOMER* 4316	Aliphatic Urethane Acrylate	30	4 300	4	600	15	D41	7
GENOMER* 4335	Aliphatic Urethane Acrylate Hydroxy Functional	770	111 500	22	3 100	4	D81	17
GENOMER* 4337	Aliphatic Urethane Acrylate	2 600	377 800	68	9 900	4	D84	87
GENOMER* 4365	Aliphatic Urethane Methacrylate	2 340	339 400	73	10 600	4	D87	112
GENOMER* 4425	Aliphatic Urethane Acrylate	1 670	242 200	34	5 000	3	D85	18
GENOMER* 4515	Aromatic Urethane Acrylate	710	102 700	10	1 500	1	D75	n/a
GENOMER* 4590/PP	Aliphatic Urethane Acrylate	1 610	233 500	16	2 400	<1	D91	42
GENOMER* 4622	Aromatic Urethane Acrylate	1 440	208 900	13	1 900	<1	D91	55
GENOMER* 4690	Aliphatic Urethane Acrylate	1 230	177 800	11	1 700	<1	D91	55
GENOMER* 4691	Aliphatic Urethane Acrylate	1 300	188 000	12	1 800	<1	D91	55
Oligoamines & Specialties								
GENOMER* 5271	Amine Acrylate	10	1 900	<1	100	6	A83	-48
GENOMER* 5275	Amine Acrylate	10	1 400	<1	100	7	A78	-48
GENOMER* 5695	Acrylated Oligoamine	40	6 500	2	300	5	D41	-27
GENOMER* 7151	Carboxyfunctional Polyester Acrylate	3 990	578 700	25	3 700	<1	D85	37
GENOMER* 7244	Modified Methacrylate	4 490	651 200	40	5 800	<1	D88	130
GENOMER* 7302	Speciality Resin	720	104 300	18	2 700	10	D77	31
GENOMER* 7311	Acrylate Resin	20	3500	1	200	5	A87	-40

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SWISS EXPERTISE

Version: 02/2026