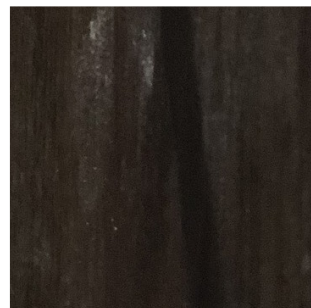


Vinyl based
Flooring
—
Product
guide



We bring it all together.



Vinyl Based Flooring

Product guide resin



UV/EB RAW MATERIAL AND TECHNICAL SOLUTION PROVIDER

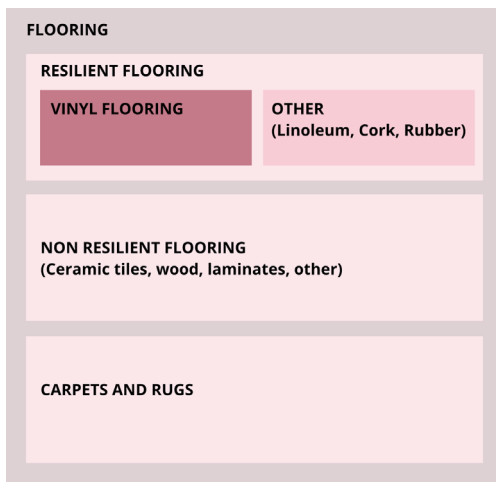
IGM Resins is the leading global provider of energy curable raw material solutions to a wide variety of industries such as graphic arts, industrial coatings, adhesives and 3D printing. The combination of our global presence, unique market driven and customer focused approach, technical and regulatory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

HOW TO GET MORE FROM US

The flooring market can be segmented in soft cover flooring (carpets and rugs), non-resilient flooring (ceramic tiles, wood and laminate) and resilient flooring (linoleum, cork, rubber and vinyl). Development in re-modelling and new construction in residential and non-residential buildings is boosting the demand in flooring. The superior performance properties of vinyl flooring (vinyl sheet, vinyl composite tiles and luxury vinyl tiles) are driving the high demand of this



by the UV coating applied on top providing chemical, water, stain and mechanical resistance properties such as scratch and scuff/markings resistance.

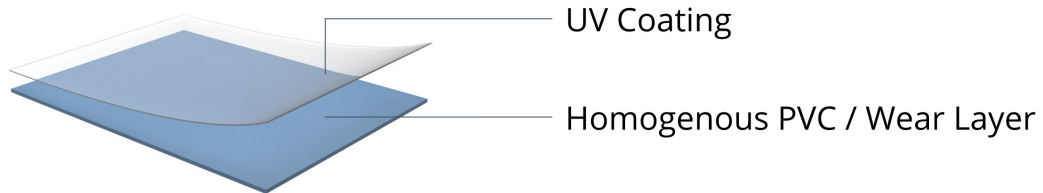
To meet these challenging requirements, IGM Resins offers different solutions. In this leaflet you will find information about our product portfolio. For more details, contact your local sales representative or send us an email to sales@igmresins.com for Europe and Asia and ussales@igmresins.com for America.

type of flooring. As a result of the versatility of its graphic layer, luxury vinyl tiles provide superior design capabilities resembling the look of natural wood, marble, granite, concrete or other types of flooring. The performance properties are for a significant part determined

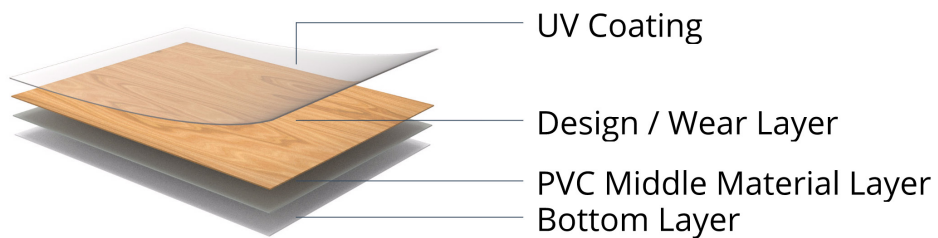


RESILIENT FLOORING - VINYL BASED FLEXIBLE AND RIGID FLOORING

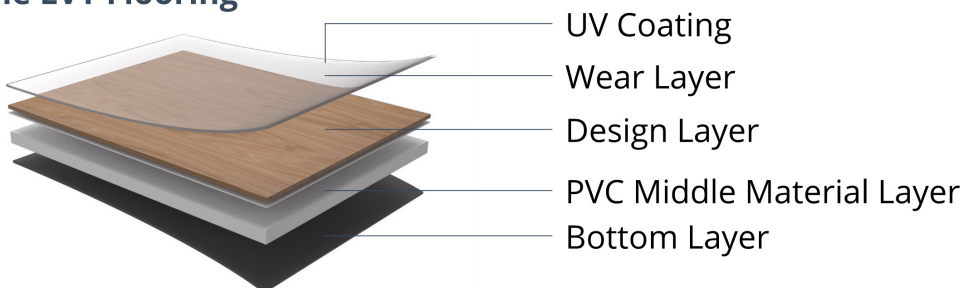
Flexible Roll Flooring Homogenous



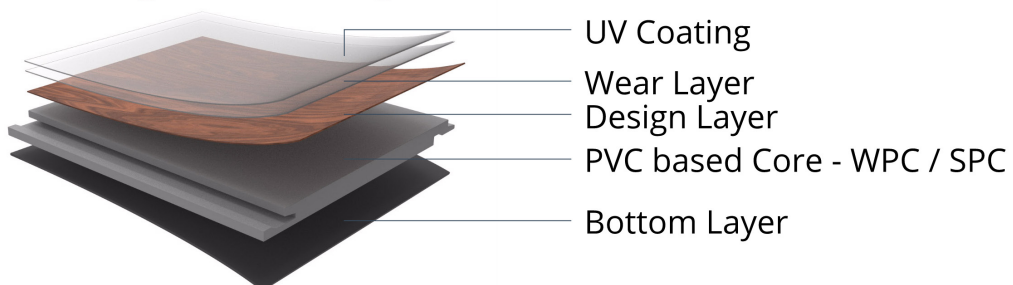
Flexible Roll Flooring Heterogeneous



Flexible LVT Flooring



Inflexible / Rigid LVT Flooring

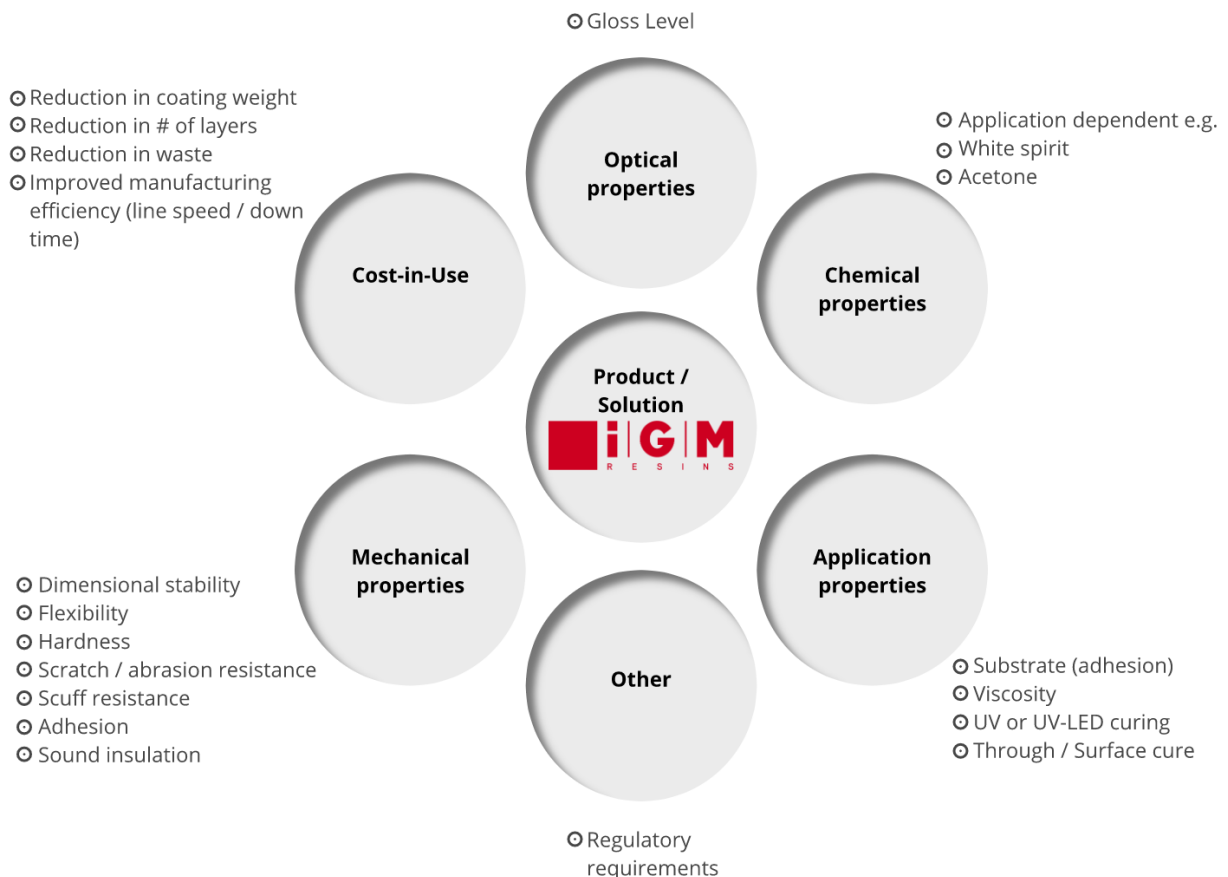




Layer Functionality

- UV Coating – chemical, water, stain, scratch and scuff / marking resistance.
- Wear Layer – will gradually get worn away with time from the passage of feet and the movement of furniture.
- Design Layer – wood, stone, tile or other designs. Typically inkjet printed PVC film or paper.
- PVC Middle Material Layer – glass fiber reinforced for dimensional stability.
- PVC based Core – wood polymer core (WPC) or stone polymer core (SPC) for dimensional stability.
- Bottom Layer – sound insulation and comfort improvement.

UNDERSTANDING ALL DIMENSIONS FOR AN INTEGRATED TOTAL SOLUTION WITH IGM'S CORE PORTFOLIO OF PHOTOINITIATORS AND ENERGY CURABLE RESINS



Chemical Identity	Functionality	Viscosity mPa.s at 25°C	Product attributes	EU Reach *	USA TSCA *	China IECSC *	Japan ENCS *	K-REACH *	Taiwan TSCI *	Canada *	Australia AICS *
-------------------	---------------	-------------------------	--------------------	------------	------------	---------------	--------------	-----------	---------------	----------	------------------

OLIGOMERS

Photomer 4967	Acrylated Amine Synergist	1	20	High reactivity / Chemical resistance / Oxygen inhibitor	•	•	•		•	DSL	•
Photomer 5050	Polyether Acrylate	4	2500	Fast curing, high functionality, good mechanical resistance	•	•				•	
Photomer 5436	Polyester Acrylate	6	20000	Abrasion and scratch resistance / hardness / Solvent resistance	•	•					
Photomer 5662	Amine modified Polyether Acrylate	4	3000	Good abrasion resistance, coating hardness, good reactivity	•	•	•		•		
Photomer 6010	aliphatic PUA	3	5800**	Good flexibility, non yellowing, abrasion resistance	•	•	•		•	•	•
Photomer 6184	Aliphatic PUA	3	58000	Ease of handling / Hardness / Tensile strength / Temperature Resistance / Low yellowing	•	•	•		•	NDSL	•
Photomer 6210	Aliphatic PUA	2	12000	Scratch resistance, flexibility, impact resistance, adhesion, non yellowing, High refractive Index	•	•	•	•	•	DSL	•
Photomer 6215	Aliphatic PUA	2	20000**	Mechanical resistance / Flexibility / Low yellowing	•	•	•		•	•	•
Photomer 6643	aliphatic PUA	2	50000**	High elongation, excellent flexibility adhesion, abrasion resistance	•	•	•		•	•	•
Photomer 6646	aliphatic PUA	4	32500**	Good reactivity, good scratch resistance and good weatherability	•	•	•		•	•	•
Photomer 9145	Polyester Acrylate	-	11000	Adhesion / Pigment and matting agent wetting	•						
Photomer 5010	Polyester Acrylate	2	Gel	Self matting / Low gloss		•	•		•	•	

* Disclaimer:

The information in this overview is presented in good faith and believed to be correct, but is provided on the condition that persons receiving it will make their own assessment on its correctness referring to the latest version of official documentation (e.g. safety data sheet).

** @ 60°C

Chemical Identity	Functionality	Viscosity mPa.s at 25°C	Product attributes	EU Reach *	USA TSCA *	China IECSC *	Japan ENCS *	K-REACH *	Taiwan TSCI *	Canada *	Australia AICS *
-------------------	---------------	-------------------------	--------------------	------------	------------	---------------	--------------	-----------	---------------	----------	------------------

MONOMERS

Photomer 4017	HDDA	2	8	Adhesion, chemical resistance, high solvency & cutting power, High refractive Index	•	•	•	•	•	DSL	•
Photomer 4039	P4EOA	1	30	Flexible, low odour, adhesion		•	•		•	DSL	•
Photomer 4061	TPGDA	2	13	Versatile, good flexibility and high reactivity	•	•	•	•	•	DSL	•

	Chemical Identity	Functionality	Viscosity mPa.s at 25°C	Product attributes	EU Reach *	USA TSCA *	China IECSC *	Japan ENCS *	K-REACH *	Taiwan TSCI *	Canada *	Australia AICS *
Photomer 4071	MPDDA	2	8.5	Low odour, adhesion, high solvency & cutting power	•	S	•	•				
Photomer 4072	TMP3POTA	3	80	High reactivity / Flexibility / Chemical resistance / Low shrinkage		•	•			•	DSL	•
Photomer 4666	DPHA	6	5500	High reactivity, hardness and scratch resistant	•						DSL	
Photomer 4703	-	1	4000	Acid functional acrylate for adhesion	•	•	•	•			NDSL	
Photomer 4810	IDA	1	6	Flexibility, hydrophobic, pigment wetting, substrate wetting, High refractive Index	•	•	•	•		•	DSL	•

	Chemistry	CAS Number	Melting point °C	LED	Pigmented system	Clear system	Waterbased system	EU Reach *	USA TSCA *	China IECSC *	Japan ENCS *	K-REACH *	Taiwan TSCI *	Canada *	Australia AICS *
--	-----------	------------	------------------	-----	------------------	--------------	-------------------	------------	------------	---------------	--------------	-----------	---------------	----------	------------------

PHOTOINITIATORS

Esacure KIP 100F	Type I	163702-01-0 + 7473-98-5	Liquid **		•			•	•	•	•	•	•	DSL	•
Omnirad 184	Type I	947-19-3	44-50			•	•	•	•	•	•	•	•	DSL	•
Omnirad BP	Type II	119-61-9	45-49		•	•	•	•	•	•			•	DSL	•
Omnirad BDK	Type I	24650-42-8	64-67		•			•	•	•	•	•	•	DSL	•
Omnirad TPO	Type I	75980-60-8	91-94	•	•	•		•	•	•	•	•	•	DSL	•
Omnirad 127	Type I	474510-57-1	45-50		•	•		•	•	•	•	•	•	•	•
Esacure 1001M	Type II	272460-97-6	>100	•		•		•	•			•	•	NDSL	
Omnirad 754	Type I	-	Liquid **		•	•		•	•	•	•	•	•	•	•
Omnirad 819	Type I	162881-26-7	127-133	•	•	•		•	•	•	•	•		DSL	•
Omnirad TPO-L	Type I	84434-11-7	Liquid **	•	•	•		•	•	•	•	•	•	DSL	

* Disclaimer:

The information in this overview is presented in good faith and believed to be correct, but is provided on the condition that persons receiving it will make their own assessment on its correctness referring to the latest version of official documentation (e.g. safety data sheet).

** : At room temperature

S: SNUR for this product

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.igmresins.com

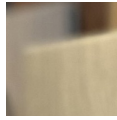
AMERICAS

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



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, Ompipol, Ompirad, Ompicat and Esacure are registered trademark of IGM Resins.



sales@igmresins.com
www.igmresins.com

