Energy Curable Resins for

Inks and Coatings

HEALTH · NUTRITION · MATERIALS

DSM
BRIGHT SCIENCE. BRIGHTER LIVING.

Creating brighter lives...

...for people today and for generations to come.

At DSM, we use our unique skills in material sciences to create brighter lives for people today and in the future. We create solutions that nourish, protect, and improve the performance of millions of products all over the globe. At the same time, our solutions contribute to a more sustainable world. This is reflected in our approach to the Energy Curable Industry.

Leading the way

At DSM, we see sustainability as an opportunity. By exchanging ideas and collaborating openly, we lead the way in innovation. We continuously add value to people's lives, make a positive contribution to our customer's businesses, and protect the planet.

Bright Science

Bright Science is at the heart of all we do in the Energy Curable Industry. We use the intimate knowledge of our markets and deep materials science expertise across a wide range of applications. Our global network of industry specialists spends their working lives talking to customers and other stakeholders in the supply chains. Through deep partnerships, we built on mutual trust and create bespoke products enhancing our customers' formulas and their customers' everyday experiences.

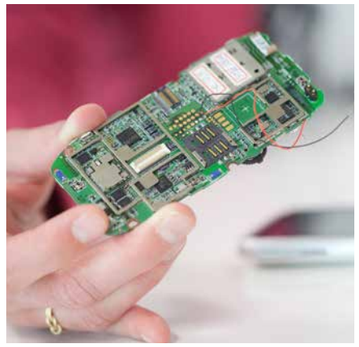
DSM Coating Resins

At DSM Coating Resins, we develop sustainable coating solutions, with a focus on waterborne, powder and energy curable technologies. We provide resins to the coating, printing & packaging and electronic markets around the globe. We design resin systems with tomorrow's environmental requirements in mind, guided by our Product Stewardship principles, an awareness of the need for continuity and a strong sense of responsibility. We have an outstanding product portfolio that we continue to improve every day.

Energy Curable Resins

We are a specialty unit of DSM Coating Resins focusing on the Energy Curable Industry, one of the most sustainable and dynamic coating technologies available in the market. From our headquarters in Taiwan, we provide our products all over the globe with dedicated manufacturing sites and warehouses, technical support, and R&D centers, in Europe, US, China and Japan.

Our broad portfolio of Energy Curable Resins consists of monomers, epoxy and polyester acrylates, acrylated and solid acrylics and amine acrylates. All products are sold under the AgiSyn™, NeoRad™ product ranges.
The energy curable technology is used in many industrial applications. Nevertheless, it is a technology which still has many opportunities for innovation, not only to improve the performance in existing application areas, but also to take it to new markets.



Aliphatic urethane acrylates

Of all the acrylates resins, urethane acrylates possess best balance between hardness, toughness, flexibility, chemical resistance and abrasion resistance. Due to their resistance to weathering and low yellowing, aliphatic urethane acrylates are preferred over aromatic urethane acrylates in high-end applications.

Product name	Description	Functionality	Molecular weight	Viscosity	Acid value	Hydroxyl value	Color	Tg	Features	Adhesion	Chemical resistance	Flexibility	Hardness	Reactivity
AgiSyn™ 230A2	Aliphatic urethane acrylate	6	1000	65 - 85	<2	38	<2	35	**Good scratch resistance offering excellent adhesion to various industrial plastics.**	●●●	●●●●	●	●●●●	●●●
AgiSyn™ 230A3	Aliphatic urethane acrylate	6	1000	90 - 120	<2	35	<2	35	**Good scratch resistance with excellent adhesion to various industrial plastics.**	●●●	●●●●	●	●●●●	●●●
AgiSyn™ 230S1-A85	Aliphatic urethane acrylate diluted with 15% TPGDA	2	1200	60 - 80	<2	<10	<2	33	**Good outdoor resistance.**	●●	●●	●●●	●	●●
AgiSyn™ 230S1-B85	Aliphatic urethane acrylate diluted with 15% HDDA	2	1200	30 - 50	<2	<10	<2	33	**Excellent outdoor resistance.**	●●	●●	●●●	●	●●
AgiSyn™ 230T1	Aliphatic urethane acrylate	2	1500	55 - 75	<2	<10	<2	-25	**Good flexibility, wear resistance and toughness.**	●●	●	●●●	●	●●
AgiSyn™ 236-G75	Aliphatic urethane acrylate diluted with 25% G3POTA	3	2000	75 - 145	<2	<10	<2	32	**Excellent adhesion to various plastics.**	●●●	●●	●●	●	●●
AgiSyn™ 242	Aliphatic urethane acrylate	7	1000	30 - 50	<2		<2		**Very high scratch resistance providing excellent adhesion to various industrial plastics.**	●●●	●●●●	●	●●●●	●●●●
AgiSyn™ 2421	Aliphatic urethane acrylate	7	1300	37 - 83	<1	<10	<1		**Excellent steelwool resistance and excellent adhesion to various industrial plastics.**	●●●	●●●●	●●	●●●●	●●●●
AgiSyn™ 298	Aliphatic urethane acrylate	4	1500	5 - 9	<2	<5	<150 (APHA)		**Very high wear and abrasion resistance.**	●●	●●	●●●	●●	●●●●
AgiSyn™ 530	Aliphatic urethane acrylate diluted with 25% butyl acetate	6	1000	2 - 4	<2	27	<2		**Easy-To-Matt resin offering easy gloss reduction for solvent based spray coatings.**	●●●	●●●	●	●●●	●●●
AgiSyn™ 536	Aliphatic urethane acrylate diluted with 30% solvent mixture	4	10000	0.45 - 0.75	6	37	<1		**Excellent adhesion to metals, recommended as topcoat for vacuum metalized materials.**	●●●	●●	●●	●●●	●●●
NeoRad™ U-10-15H	Aliphatic urethane acrylate diluted with 15% HDDA	3	2000	37.5 - 50.0	<1	<10	<2	14	**General purpose resin exhibiting good alkaline resistance.**	●●	●●	●●●	●●	●●
NeoRad™ U-10-15T	Aliphatic urethane acrylate diluted with 15% TPGDA	3	2000	115 - 150	<1	<10	<2	12	**General purpose resin exhibiting good alkaline resistance.**	●●	●●	●●●	●	●●
NeoRad™ U-20-12H	Aliphatic urethane acrylate diluted with 12% HDDA	2	1200	1.9 - 2.3 (60°C)	<1	<10	<1	20	**Excellent outdoor resistance and low yellowing**	●●	●●	●●●	●	●●
NeoRad™ U-23-20T	Aliphatic urethane acrylate diluted with 20% TPGDA	2	1300	70 - 150	<1	<10	<2		**Excellent abrasion resistance and low yellowing.**	●●	●●	●●	●●	●●
NeoRad™ U-24-25Z	Aliphatic urethane acrylate diluted with 25% HEMA	2	1300	6 - 14	<1	110	<1		**Very high toughness, excellent elongation and low shrinkage.**	●●●	●●	●●●	●	●●
NeoRad™ U-25-20D	Aliphatic urethane acrylate diluted with 20% DPGDA	2	1300	20 - 30	<1	<10	<1	18	**High reactivity, excellent flexibility, good scratch and abrasion resistance.**	●●	●●	●●●	●	●●●
NeoRad™ U-6282	Aliphatic urethane acrylate	2	1200	0.25 - 0.45	<2	<10	<2	19	**Low yellowing Easy-To-Matt resin offering easy gloss reduction.**	●●	●●	●●●	●	●●
NeoRad™ U-80	Aliphatic urethane acrylate	2	4500	27 - 37	<2	<10	<2		**Excellent adhesion to melamine paper and very high elasticity.**	●●●	●	●●●●	●	●

Legend

Functionality	Theoretical value	**Acid value**	mg KOH per gram	●	Low
Molecular weight	Theoretical value	**Hydroxyl value**	mg KOH per gram	●●	Moderate
Viscosity	Pa.s at 25°C	**Color**	Gardner	●●●	Good
		Tg	°C	●●●●	Excellent

Aromatic urethane acrylates

Product name	Description	Functionality	Molecular weight	Viscosity	Acid value	Hydroxyl value	Color	Tg	Features	Adhesion	Chemical resistance	Flexibility	Hardness	Reactivity
AgiSyn™ 670A2	Aromatic urethane acrylate	6	950	24.5 - 32.5	<2	40	<2	49	**Good scratch resistance, excellent adhesion to various industrial plastics.**	●●●	●●●●	●	●●●●	●●●●
AgiSyn™ 670T1	Aromatic urethane acrylate	2	1600	270 - 330	<2	<10	<2	-24	**Excellent wear resistance and toughness.**	●●	●	●●●	●	●●
AgiSyn™ 670T1-D75	Aromatic urethane acrylate diluted with 25% DPGDA	2	1600	5.5 - 7.5	<2	<10	<2	-26	**Low viscosity, excellent wear resistance and toughness.**	●●	●	●●●	●	●●
NeoRad™ U-60	Aromatic urethane acrylate	2	1600	4.0 - 5.4 (60°C)	<1	<10	<2	-20	**Excellent wear resistance and toughness.**	●●	●	●●●	●	●●
NeoRad™ U-61	Aromatic urethane acrylate	2	1200	1.2 - 1.6	<1	160	<2	25	**Very high toughness, excellent elongation and low shrinkage. Good adhesion to various woods.**	●●●	●●	●●●●	●●	●●
NeoRad™ U-6288	Aromatic urethane acrylate	3	900	0.05 - 0.10 (23°C)	<3	40	<6	19	**Easy-To-Matt resin offering easy gloss reduction.**	●●	●●	●●	●●	●●

Polyester acrylates

By highly favorable cost-performance ratio and very wide selection of backbone building blocks, polyester acrylates are well suited for a high number of applications. They are available in a range of viscosities and cure speeds. Generally polyester acrylates exhibit moderate to high shrinkage but still provide a well-balanced elasticity.

Product name	Description	Functionality	Molecular weight	Viscosity	Acid value	Hydroxyl value	Color	Tg	Features	Adhesion	Chemical resistance	Flexibility	Hardness	Reactivity
AgiSyn™ 705	Fatty acid modified polyester acrylate	4	1300	100 - 220	<20		<20	-3	**Excellent pigment grinding vehicle. Based on 35% renewable materials.**	●	●●●	●●	●●	●●
AgiSyn™ 707	Polyester acrylate	4	470	200 - 300	<1		<2		**Recommended for offset inks, high viscosity, low tack, low misting and good flow.**	●●	●●	●●	●●	●●
AgiSyn™ 716	Fatty acid modified polyester acrylate	6	1100	7 - 10	<20	30	<13		**Low odour, low extractable and low viscous grinding. Based on 30% renewable materials.**	●●	●●●	●	●●●	●●
AgiSyn™ 720	Polyester acrylate	4	1000	0.4 - 1.0	<20		<2	31	**Very low viscosity, good silica wetting.**	●●	●	●●	●	●●
AgiSyn™ 730	Polyester acrylate	4	1500	15 - 20	<5		<4	64	**General purpose resin providing good stain resistance and silica wetting.**	●●	●●●	●●●	●●●	●●
AgiSyn™ 740	Polyester acrylate	4	2500	25 - 35	<8		<5		**General purpose resin providing good silica wetting.**	●●●	●●	●●●●	●●	●●
AgiSyn™ 9771	Polyester acrylate	1	300	2 - 3	200				**High acid value resin designed for for etching resist solder mask and excellent resolution.**	●●	●●●	●●	●	●
NeoRad™ P-11	Polyester acrylate	3	750	25 - 45 (23°C)	<20	40	<4	7	**Excellent silica wetting and good wear resistance.**	●●	●●●	●●●	●	●●●
NeoRad™ P-50	Polyester acrylate	4	1100	1.5 - 2.1 (23°C)	<10	55	<2		**Low odour, low extractable and low viscous flexo pigment grinding vehicle with good adhesion to various flexible plastic substrates. Based on 20% renewable materials.**	●●●	●●	●●	●●	●●●●
NeoRad™ P-56	Fatty acid modified polyester acrylate	6	1800	35 - 45	<20	20	<12		**Low odour and low extractable resin offering excellent pigment grinding. Based on 25% renewable materials.**	●	●●●	●	●●●	●●

Legend

Functionality	Theoretical value	**Acid value**	mg KOH per gram	●	Low
Molecular weight	Theoretical value	**Hydroxyl value**	mg KOH per gram	●●	Moderate
Viscosity	Pa.s at 25°C	**Color**	Gardner	●●●	Good
		Tg	°C	●●●●	Excellent

Epoxy acrylates

Epoxy acrylates are widely used in radiation curable formulations due to their cost-performance ratio combined with high reactivity. Cured coatings comprising on epoxy acrylates generally exhibit high gloss, high hardness and very high chemical resistance. The fatty acid modified epoxy acrylates provide some improved wetting and flexibility.

Product name	Description	Functionality	Molecular weight	Viscosity	Acid value	Hydroxyl value	Color	Tg	Features	Adhesion	Chemical resistance	Flexibility	Hardness	Reactivity
AgiSyn™ 1010*	Bisphenol A epoxy acrylate	2	500	4 - 7 (60°C)	<2	220	<1	60	**Multi purpose resin offering good mechanical properties.**	●	●●●●	●	●●●●	●●●●
AgiSyn™ 1030*	Bisphenol A epoxy acrylate	2	500	11 - 21 (50°C)	<2	220	<1	60	**Multi purpose resin offering good wear resistance.**	●	●●●●	●	●●●●	●●●●
AgiSyn™ 1050*	Bisphenol A epoxy acrylate	2	500	2.0 - 4.5 (65°C)	<1	220	<3	60	**Multi purpose resin with silica wetting.**	●	●●●●	●	●●●●	●●●●

Legend

Functionality	Theoretical value	**Acid value**	mg KOH per gram	●	Low
Molecular weight	Theoretical value	**Hydroxyl value**	mg KOH per gram	●●	Moderate
Viscosity	Pa.s at 25°C	**Color**	Gardner	●●●	Good
		Tg	°C	●●●●	Excellent

* AgiSyn™ 1010, AgiSyn™ 1030 and AgiSyn™ 1050 are also available in diluting acrylates. Please contact your local account manager.

Novolac epoxy acrylates

Product name	Description	Functionality	Molecular weight	Viscosity	Acid value	Hydroxyl value	Color	Tg	Features	Adhesion	Chemical resistance	Flexibility	Hardness	Reactivity
AgiSyn™ 9720	Modified cresol novolac epoxy acrylate diluted with 40% Carbitol acetate	2	9500	35 - 45	56		<6		**High resolution resin for photoimageable solder mask inks offering good mechanical properties, heat resistance and good gold plating.**	●●●	●●●●	●	●●●●	●●●
AgiSyn™ 9720S	Modified cresol novolac epoxy acrylate diluted with 35% Carbitol acetate	2	9500	45 - 55	54		<5	45	**High resolution resin for photoimageable solder mask inks offering good mechanical properties, heat resistance and good gold plating.**	●●●	●●●●	●	●●●●	●●●
AgiSyn™ 9721H	Modified cresol novolac acrylate diluted with 35% Carbitol acetate	3	12500	17 - 21	46		<5		**Recommended for photoimageable solder mask inks. High heat resistance and good gold plating.**	●●●	●●●●	●	●●●●	●●●●
AgiSyn™ 9760	Modified phenol novolac acrylate diluted with 50% TMPTA	3	1500	15 - 25	<2		<5		**Excellent resin for solder mask inks. Good heat resistance with low shrinkage.**	●●●	●●●●	●	●●●●	●●●

Legend

Functionality	Theoretical value	**Acid value**	mg KOH per gram	●	Low
Molecular weight	Theoretical value	**Hydroxyl value**	mg KOH per gram	●●	Moderate
Viscosity	Pa.s at 25°C	**Color**	Gardner	●●●	Good
		Tg	°C	●●●●	Excellent

Modified epoxy acrylates

Product name	Description	Functionality	Molecular weight	Viscosity	Acid value	Hydroxyl value	Color	Tg	Features	Adhesion	Chemical resistance	Flexibility	Hardness	Reactivity
AgiSyn™ 2020	Epoxidised soya oil acrylate	2	1100	23 - 33	‹5	130	‹7	35	**General purpose resin with excellent wetting properties. Contains about 75% renewable materials.**	●	●●	●	●●	●●
AgiSyn™ 2020-CD87	Epoxidised soya oil acrylate diluted with 40% TMPTA, DPGDA	2	1100	1.5 - 2.2	‹5	80	‹7		**Low viscous general purpose resin offering excellent wetting properties. Contains about 45% renewable materials.**	●	●●	●	●●	●●
AgiSyn™ 3010-A50	Modified epoxy acrylate diluted with 50% TPGDA	2	1100	9.5 - 15.0	‹3	65	‹2		**Epoxy acrylate exhibiting a very modulus.**	●●	●●●	●●	●●●	●●●
AgiSyn™ 3020-A80	Modified epoxy acrylate diluted with 20% TPGDA	2	1200	32 - 48	‹5	70	‹2	51	**Tough epoxy acrylate exhibiting excellent metallization acceptation.**	●●	●●●	●●●	●●●	●●●
AgiSyn™ 3050	Modified epoxy acrylate	2	1000	3.0 - 7.5 (60°C)	‹5		‹4	57	**Tough epoxy acrylate offering excellent pigment wetting.**	●●	●●●●	●●●	●●●	●●●●
AgiSyn™ 3051	Fatty acid modified epoxy acrylate	2	550	1 - 5 (60°C)	‹3	200	‹3	56	**Multi purpose resin offering excellent wetting and good mechanical properties.**	●●	●●●	●●	●●●	●●●
AgiSyn™ 9750	Modified epoxy acrylate diluted with 50% DEGDMA	2	1700	15 - 25	‹3		‹3		**Excellent resin for solder mask applications offering good heat resistance with low shrinkage.**	●●	●●●	●●	●●	●●
AgiSyn™ 9788	Modified epoxy acrylate diluted with 40% Shellsol A150 & Carbitol acetate	2	1800	30 - 60	65			57	**Resin for flexible circuits solder mask inks. High resolution and excellent gold plating.**	●●●	●●●●	●●●	●●●	●●●
NeoRad™ E-20	Fatty acid modified epoxy acrylate	2	550	2 - 4 (60°C)	‹3	200	‹3	43	**Multi purpose resin offering good pigment wetting.**	●	●●●●	●	●●●●	●●●●

Legend

Functionality	Theoretical value	**Acid value**	mg KOH per gram	●	Low
Molecular weight	Theoretical value	**Hydroxyl value**	mg KOH per gram	●●	Moderate
Viscosity	Pa.s at 25°C	**Color**	Gardner	●●●	Good
		Tg	°C	●●●●	Excellent

Acrylics

Acrylics provide reduced shrink to a coating and achieve improved adhesion. Additionally depending on chemistry and use acrylics provide hardness and flexibility to an energy curable coating system. Inert acrylics are available as a solid material (also known as beads) and as a liquid in diluting acrylates.

Product name	Description	Functionality	Molecular weight	Viscosity	Acid value	Hydroxyl value	Color	Tg	Features	Adhesion	Chemical resistance	Flexibility	Hardness	Reactivity
AgiSyn™ 260-AB50	Acrylic copolymer diluted with TPGDA & HDDA	Inert	42000	14 - 21	<1	30	<3	30	**Resin for primers and white basecoats offering excellent adhesion to diffcult substrates.**	●●●	●	●●●	●●	●
AgiSyn™ 268-B70	Acrylic copolymer diluted with HDDA	Inert	35000	3 - 5	<1		<3	51	**Low viscosity resin for primers and white basecoats offering excellent adhesion to diffcult substrates.**	●●●●	●	●●●	●	●
AgiSyn™ 9790	Methacrylated acrylic diluted with 50% Carbitol	45	21000	22 - 32	37		<3		**Main resin for solder resist protective mask, low yellowing, high temperature resistance and good light resistance.**	●●●	●●●●	●	●●●	●●
AgiSyn™ 9790DPM	Methacrylated acrylic diluted with a 50% DPM	40	18000	55 - 95	38			49	**Resin for solder resist protective mask, low yellowing, high temperature resistance and good light resistance.**	●●●	●●●●	●	●●●	●●
AgiSyn™ 9790PC-2	Methacrylated acrylic diluted with 50%Carbitol, PM and PMA	50	23000	30 - 35	36		<3		**Resin for solder resist protective mask, low yellowing, high temperature resistance and good light resistance.**	●●●	●●●●	●	●●●	●●
AgiSyn™ 9792	Methacrylated acrylic diluted with 50% Carbitol & PM & PMA	30	18000	15 - 25	45				**Main resin for solder resist protective mask, high acid value, low yellowing, high temperature resistance and good light resistance.**	●●●	●●●●	●	●●●	●●
NeoRad™ A-20	Acrylated acrylic diluted with 50% with butyl acetate	20	30000	0.5 - 1.0 (23°C)	<15	150	<4	42	**Suitable for for dual cure. Good outdoor durable and excellent anti-sagging properties.**	●●	●●●	●	●●●	●●●
NeoCryl® B-300	Solid methacrylic copolymer	Inert	15000	0.7 - 1.3[1)]	<1	<1	White powder	45	**Low viscosity when dissolved in diluting acrylates, good scratch resistance.**	●●●●	●	●●	●●	●
NeoCryl® B-302	Solid methacrylic copolymer	Inert	5000	0.4 - 0.8[1)]	4	<1	White powder	80	**Low viscosity when dissolved in diluting acrylates, high Tg.**	●●●●	●●	●●	●●	●

Legend

Functionality	Theoretical value	**Acid value**	mg KOH per gram	●	Low
Molecular weight	Theoretical value	**Hydroxyl value**	mg KOH per gram	●●	Moderate
Viscosity	Pa.s at 25°C	**Color**	Gardner	●●●	Good
	[1)] 40% solution in HDDA	**Tg**	°C	●●●●	Excellent

Amine modified acrylates

The typical combination of high cure speeds and overall balanced properties makes the amine modified acrylates unique. Often these resins are used to increase the cure speed without compromising on other coating characteristics.

Product name	Description	Functionality	Molecular weight	Viscosity	Acid value	Amine value	Color	Tg	Features	Adhesion	Chemical resistance	Flexibility	Hardness	Reactivity
AgiSyn™ 701	Amine modified polyether acrylate	4	1000	2.5 - 3.5	<1	55-65	<2	50	**Excellent reactivity, good wetting.**	●●	●●	●●	●	●●●●
AgiSyn™ 701P	Amine modified polyether acrylate	4	1000	2.5 - 3.5	<1	55-65	<2	50	**Low migration version of AgiSyn™ 701.**	●●	●●	●●	●	●●●●
AgiSyn™ 703	Amine modified polyether acrylate	4	1000	0.45 - 0.65	<1	35-45	<2	6	**Low viscosity and high scratch resistance.**	●●	●●	●●	●●	●●●●
AgiSyn™ 703TF	Amine modified polyether acrylate	4	1000	0.45 - 0.65	<1	35-45	<1	6	**Toluene free version of AgiSyn™ 703.**	●●	●●	●●	●●	●●●●
NeoRad™ P-85	Amine modified polyether acrylate	6	1400	0.3 - 0.7 (23°C)	<10	10-15	<6	24	**Good scratch resistance and good wetting.**	●●	●●●	●	●●	●●●●

Legend

Functionality	Theoretical value	**Acid value**	mg KOH per gram	●	Low
Molecular weight	Theoretical value	**Amine value**	mg KOH per gram	●●	Moderate
Viscosity	Pa.s at 25°C	**Color**	Gardner	●●●	Good
		Tg	°C	●●●●	Excellent

Amine synergists

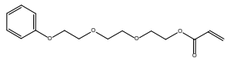
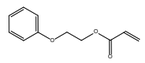
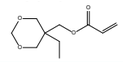
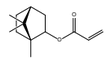
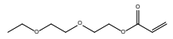
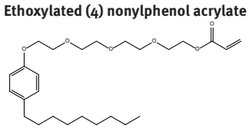
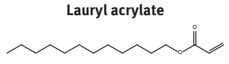
Amine synergists are co-initiators which enhance the reactivity of UV curable systems. Best performance is achieved when combined with Norrish type II initiators. The acrylate functionality ensures this type of synergist is being incorporated in the final coating structure.

Product name	Description	Functionality	Molecular weight	Viscosity	Acid value	Amine value	Color	Tg	Features	Adhesion	Chemical resistance	Flexibility	Hardness	Reactivity
AgiSyn™ 002	Functionalised amine synergist	1	450	0.01 - 0.03	<1	190-210	<2	11	**Multi purpose synergist offering very high reactivity.**	●	●●	●	●	●●●●
AgiSyn™ 003	Functionalised amine synergist	3	500	3.0 - 4.5	<1	250-270	<6	17	**Highest amine content and excellent reactivity booster.**	●	●	●	●	●●●●
AgiSyn™ 008	Functionalised amine synergist	2	500	0.5 - 1.5	<1	120-150	<2	13	**High reactivity and good adhesion.**	●●	●●	●	●	●●●●
AgiSyn™ 008TF	Functionalised amine synergist	2	500	0.5 - 1.5	<1	120-150	<2	13	**Toluene free version of AgiSyn™ 008.**	●●	●●	●	●	●●●●

Legend

Functionality	Theoretical value	**Acid value**	mg KOH per gram	●	Low
Molecular weight	Theoretical value	**Amine value**	mg KOH per gram	●●	Moderate
Viscosity	Pa.s at 25°C	**Color**	Gardner	●●●	Good
		Tg	°C	●●●●	Excellent

Mono-functional diluting acrylates

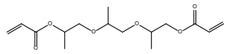
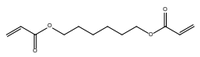
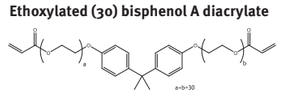
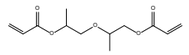
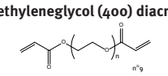
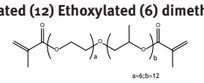
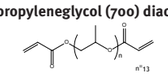
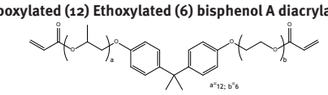
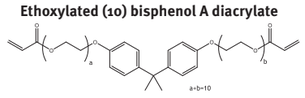
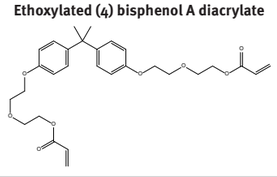
Product name	Description	CAS number	Molecular weight	Viscosity	Acid value		Color	Stabilizer	Refractive Index	Tg	Features	Toluene free	High purity
AgiSyn™ 2822	**Ethoxylated (2) 2-Phenoxy ethyl acrylate** 	56641-05-5	236	12 - 22	<0.5		<60	400-800	1.505	-45	**- Strong dilution effect** **- Low shrinkage** **- Excellent adhesion (various plastics and metals)** **- High refractive index**	1)	
AgiSyn™ 2832	**2-Phenoxy ethyl acrylate** 	48145-04-6	192	5 - 15	<0.5		<60	200-600	1.515	7	**- Strong dilution effect** **- Low shrinkage** **- Excellent adhesion (various plastics and metals)** **- High refractive index**	1)	
AgiSyn™ 2852	**Cyclic trimethylpropane formal acrylate** 	66492-51-1	200	15 - 20	<0.5		<200	100-200	1.467	40	**- Low odor** **- Excellent adhesion (various plastic and metals)** **- Good abrasion and chemical resistance**	1)	
AgiSyn™ 2870	**Isobornyl acrylate** 	5888-33-5	208	5 - 15	<0.1		<30	90-275	1.474	80	**- High Tg though good flexibility** **- Excellent adhesion to a variaty of substrates** **- Good outdoor resistance**		
AgiSyn™ 2880	**2-(2-ethoxyethoxy)ethyl acrylate** 	7328-17-8	188	3 - 8	<0.5		<60	200-600	1.435	-53	**- High flexibility** **- Good adhesion** **- Strong dilution effect**	1)	
AgiSyn™ 2895	**Ethoxylated (4) nonylphenol acrylate** 	50974-47-5	450	103 - 117	<0.1		<150	800-1300	1.493	-28	**- Excellent adhesion properties** **- Excellent dilution effect** **- High cure response**	1)	
AgiSyn™ 2896	**Lauryl acrylate** 	2156-97-0	240	4 - 10	<0.5		<30	100-200	1.444	-28	**- Low surface tension** **- Good adhesion**	1)	

Legend

Molecular weight Theoretical value
Viscosity mPa.s at 25°C
Acid value mg KOH per gram
Color APHA
Stabilizer ppm MeHQ
Tg °C

[1] Also available as Toluene Free version (TF grade)

Di-functional diluting acrylates

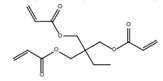
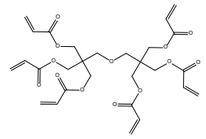
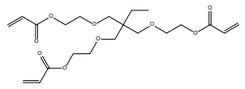
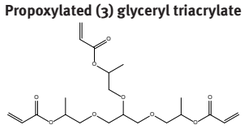
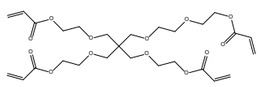
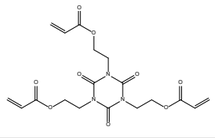
Product name	Description	CAS number	Molecular weight	Viscosity	Acid value		Color	Stabilizer	Refractive Index	Tg	Features	Toluene free	High purity
AgiSyn™ 2815	**Tripropyleneglycol diacrylate** 	42978-66-5	300	10-18	<0.1		<100	200-1000	1.450	64	**-Multi purpose acrylate -Good dilution effect**	1)	
AgiSyn™ 2816	**1.6-Hexanediol diacrylate** 	13048-33-4	226	5-10	<0.1		<60	100-300	1.457	41	**-Multi purpose acrylate -Outstanding adhesion to plastics -Strong dilution effect -Good outdoor resistance**		
AgiSyn™ 2823	**Ethoxylated (30) bisphenol A diacrylate** 	64401-02-1	1672	700-1000	<0.2		<200	100-300			**-Good flexibility resistance -Good heat resistance -Good pigment wetting**		
AgiSyn™ 2833	**Dipropyleneglycol diacrylate** 	57472-68-1	242	7-13	<0.5		<40	400-800	1.449	96	**-Multi purpose acrylate -Good dilution effect -High Tg**		
AgiSyn™ 2834	**Polyethyleneglycol (400) diacrylate** 	26570-48-9	508	30-70	<0.5		<100	300-800	1.466	-22	**-Water soluble -Good flexibility -Low shrinkage**		
AgiSyn™ 2862	**Propoxylated (12) Ethoxylated (6) dimethacrylate** 		70-120	<0.1	<0.5		<150	80-120		-59	**-Excellent hydrophilic/hydrophobic balance -Low shrinkage -Good flexibility**		
AgiSyn™ 2863	**Polypropyleneglycol (700) diacrylate** 	52496-08-9	808	70-90	<0.5		<150	50-100		-32	**-Good wetting -Water miscible**	1)	
AgiSyn™ 2866	**Propoxylated (12) Ethoxylated (6) bisphenol A diacrylate** 		<1000	<0.8	<0.5		<150	80-120		-43	**-Excellent hydrophilic/hydrophobic balance -Low shrinkage -Good flexibility -Good hardness**		
AgiSyn™ 2873	**Ethoxylated (10) bisphenol A diacrylate** 	64401-02-1	780	600-800	<0.2		<100	100-300			**-Good chemical resistance -Good heat resistance -Good pigment wetting**		
AgiSyn™ 2881	**Ethoxylated (4) bisphenol A diacrylate** 	64401-02-1	512	1000-1300	<0.5		<100	200-800	1.538	63	**-Good chemical resistance -Good heat resistance -Good pigment wetting**		

Legend

Molecular weight	Theoretical value	**Color**	APHA
Viscosity	mPa.s at 25°C	**Stabilizer**	ppm MeHQ
Acid value	mg KOH per gram	**Tg**	°C

[1] Also available as Toluene Free version (TF grade)

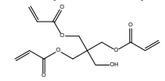
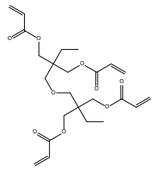
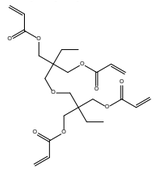
Multi-functional diluting acrylates

Product name	Description	CAS number	Molecular weight	Viscosity	Acid value		Color	Stabilizer	Refractive Index	Tg	Features	Toluene free	High purity
AgiSyn™ 2811	**Trimethylolpropane triacrylate** 	15625-89-5	296	70 - 120	<0.1		<60	100 - 300	1.474	64	**- Multi purpose acrylate** **- High reactivity**	1)	
AgiSyn™ 2830L	**Dipentaerythritol hexaacrylate** 	29570-58-9	578	4000 - 7000	<0.5		<100	300 - 900	1.496	94	**- Very high reactivity** **- High crosslink density** **- Excellent scratch resistance** **- Excellent chemical resistance**		2)
AgiSyn™ 2836	**Ethoxylated (3) trimethylolpropane triacrylate** 	28961-43-5	428	40 - 80	<0.2		<60	250 - 500	1.471	37	**- Multi purpose acrylate** **- Good reactivity** **- Good chemical resistance**	1)	2)
AgiSyn™ 2837	**Propoxylated (3) glyceryl triacrylate** 	52408-84-1	428	70 - 100	<0.5		<100	200 - 500	1.461	33	**- Multi purpose acrylate** **- Excellent wetting** **- Good reactivity**		2)
AgiSyn™ 2844	**Ethoxylated (5) pentaerythritol tertraacrylate** 	51728-26-8	550	100 - 200	<1.0		<60	200 - 600	1.475	-33	**- High reactivity** **- Good scratch resistance** **- Good solvent resistance**		2)
AgiSyn™ 2851S	**Tris (2-hydroxy ethyl) isocyanurate triacrylate** 	40220-08-4	423	Wax	<1.0		<100	300 - 1200	1.465	247	**- Extreme high Tg acrylate** **- Excellent abrasion resistance** **- Very good heat resistance** **- High reactivity**		

Legend

Molecular weight	Theoretical value	**Color**	APHA
Viscosity	mPa.s at 25°C	**Stabilizer**	ppm MeHQ
Acid value	mg KOH per gram	**Tg**	°C

[1] Also available as Toluene Free version (TF grade)
[2] Also available as High Purity version (P grade)

Product name	Description	CAS number	Molecular weight	Viscosity	Acid value		Color	Stabilizer	Refractive Index	Tg	Features	Toluene free	High purity
AgiSyn™ 2884	**Pentaerythritol triacrylate** 	222-540-8	296	650 - 1200	<1.0		<100	300 - 990	1.484	100	**- Hydroxyl functional acrylate (typical OH value = 125mg KOH/g)** **- High reactivity** **- Good adhesion**		
AgiSyn™ 2887TF	**Di-trimethylolpropane tetraacrylate** 	94108-97-1	466	400 - 700	<0.5		<100	400 - 600	1.475	98	**- Fast cure response** **- Excellent chemical resistance** **- Good hardness**	1)	
AgiSyn™ 2887HV-TF	**Di-trimethylolpropane tetraacrylate** 	94108-97-1	482	750 - 850	<0.5		<50	200 - 600	1.475	96	**- High viscous grade of AgiSyn™ 2887TF**	1)	

Legend

Molecular weight	Theoretical value	**Color**	APHA
Viscosity	mPa.s at 25°C	**Stabilizer**	ppm MeHQ
Acid value	mg KOH per gram	**Tg**	°C

[1] Also available as Toluene Free version (TF grade)

DSM Coating Resins

Asia

DSM-AGI Corporation Ltd.
6F., No.88, Sec. 6, Zhongshan N. Rd., Shilin Dist.,
Taipei. City 111
Taiwan
Phone: +886 2 8866 9999
Fax: +886 2 8866 9988
Coating.resins@dsm.com

DSM Coating Resins, Guangzhou office
Room 1004-1005, Jinlilai Shuma Wangluo Dasha,
No. 138 East Tiyu Road
510620 Guangzhou
Greater China
Phone: +86 20 3826 3700
Fax: +86 20 3826 3731
Coating.resins@dsm.com

DSM Coating Resins, Shanghai office
No. 476 Li Bing Road, Zhangjiang Hi-Tech Park,
Pudong New Area
201203 Shanghai
Greater China
Phone: +86 21 6141 8188
Fax: +86 21 6141 8088
Coating.resins@dsm.com

Europe

DSM Coating Resins B.V.
Sluisweg 12
PO Box 123
5140 AC Waalwijk
The Netherlands
Phone: +31 (0)416 689 911
Fax: +31 (0)416 689 922
Coating.resins@dsm.com

North America

DSM Coating Resins Inc.
730 Main Street
Wilmington, MA 01887
USA
Phone: +1 978 658 6600
Fax: +1 978 657 7978
Coating.resins@dsm.com

For more information please contact: coating.resins@dsm.com
www.dsmcoatingresins.com

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