



# PRODUCT SELECTOR GUIDE

PART NUMBER	CATALOG NAME	CAS / TSCA Listed (Y/N)	DESCRIPTION	STRUCTURE**	FEATURES	APPEARANCE	VISCOSITY (cP @ 25°C)	SUGGESTED APPLICATIONS
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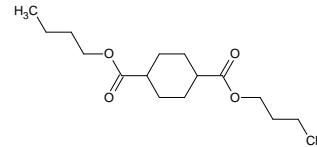
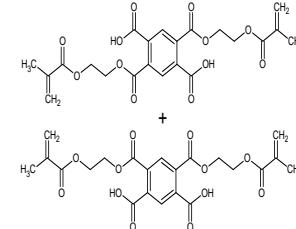
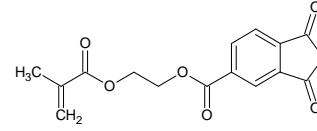
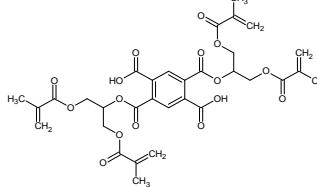
## ANTI-BLEEDS

A6150	A-6150	1151519-17-3 (Y)	A proprietary <b>non-halogenated</b> additive designed to reduce resin bleed out on a variety of surfaces (especially difficult to control copper surfaces) with minimal or no affect on the adhesion properties of the formulation.	Unavailable	<ul style="list-style-type: none"><li>Excellent bleed control</li><li>Co-curable in free-radical polymerization</li><li>Minimal adhesion degradation</li><li>Non-halogenated – a 'green' alternative to conventional anti-bleed and mold release materials</li></ul>	Yellow Liquid	100	<ul style="list-style-type: none"><li>For use as an additive to reduce resin bleed out specifically on metal surfaces</li></ul>
A6225	A-6225	224704-15-1 (N)	Antibleed Additive – Silicone Mercapto Propionate (SMP). A proprietary <b>non-halogenated</b> additive designed to reduce resin bleed out on a variety of surfaces (especially difficult to control gold surfaces) with minimal or no affect on the adhesion properties of the formulation.	Unavailable	<ul style="list-style-type: none"><li>Excellent bleed control</li><li>Co-curable in most systems</li><li>Minimal adhesion degradation</li><li>Non-halogenated – a 'green' alternative to conventional anti-bleed and mold release materials</li></ul>	Colorless Liquid	50	<ul style="list-style-type: none"><li>For use as an additive to reduce resin bleed out specifically on metal surfaces</li></ul>
A6265	A-6265	2225898-70-2 (N)	A proprietary <b>non-halogenated</b> additive designed to reduce resin bleed out on a variety of surfaces (especially difficult to control copper surfaces) with minimal or no affect on the adhesion properties of the formulation.	Unavailable	<ul style="list-style-type: none"><li>Excellent bleed control</li><li>Co-curable in free-radical polymerization</li><li>Minimal adhesion degradation</li><li>Non-halogenated – a 'green' alternative to conventional anti-bleed and mold release materials</li></ul>	Yellow Liquid	100	<ul style="list-style-type: none"><li>For use as an additive to reduce resin bleed out specifically on metal surfaces</li></ul>
A6280	A-6280	2999663-83-9 (N)	A proprietary <b>non-halogenated</b> additive designed to reduce resin bleed out on a variety of surfaces (especially difficult to control gold surfaces) with minimal or no affect on the adhesion properties of the formulation.	Unavailable	<ul style="list-style-type: none"><li>Excellent bleed control</li><li>Co-curable in free-radical polymerization</li><li>Minimal adhesion degradation</li><li>Non-halogenated – a 'green' alternative to conventional anti-bleed and mold release materials</li></ul>	Yellow Liquid	63	<ul style="list-style-type: none"><li>For use as an additive to reduce resin bleed out specifically on metal surfaces</li></ul>

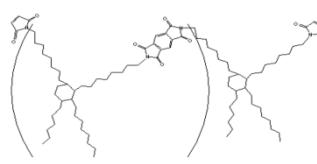
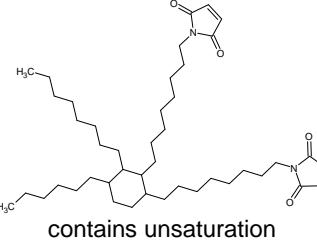
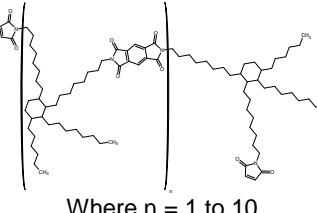
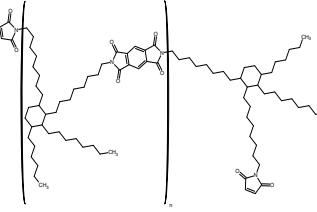
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## FUNCTIONAL ADDITIVES

A6165	A-6165	1151654-51-1 (Y)	Soluble additive that on addition to a conductive adhesive formulation can significantly decrease the volume resistivity of the cured material	Unavailable	<ul style="list-style-type: none"> <li>Improves electrical conductivity in metal filled conductive paste formulations</li> <li>Soluble in most resin systems</li> <li>May improve thermal conductivity in some formulations</li> </ul>	Dark Brown / Black	Very viscous	<ul style="list-style-type: none"> <li>Increases electrical conductivity of resin system</li> </ul>
A6220	A-284	93158-39-5 (Y)	Dibutyl-1,4 Cyclohexanedicarboxylate		<ul style="list-style-type: none"> <li>Plasticizer</li> <li>Non-phthalate</li> <li>Very low viscosity</li> </ul>	Colorless Liquid	30	<ul style="list-style-type: none"> <li>For use as a plasticizer in applications where human contact is expected</li> </ul>
R1217-M	A-478-M	111308-10-2 (N)	Pyromellitic Dianhydride Dimethacrylate – Mixture of Isomers		<ul style="list-style-type: none"> <li>Versatile adhesion promoter</li> </ul>	Fine White Powder	Solid	<ul style="list-style-type: none"> <li>Adhesion promoter</li> </ul>
R1231	A-304	70293-55-9 (N)	4-Metacryloxyethyl Trimellitic Anhydride		<ul style="list-style-type: none"> <li>Adhesion Promoter</li> <li>Versatile adhesion promoter</li> </ul>	White Powder / Crystals	Solid	<ul style="list-style-type: none"> <li>Adhesion promoter</li> </ul>
R1251	A-675-100%	148019-46-9 (Y)	PMGDM		<ul style="list-style-type: none"> <li>Versatile adhesion promoter</li> </ul>	Light Yellow	Very viscous	<ul style="list-style-type: none"> <li>Adhesion promoter</li> </ul>

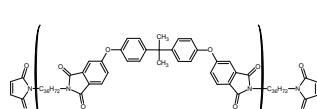
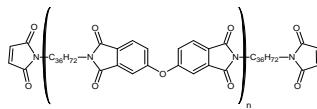
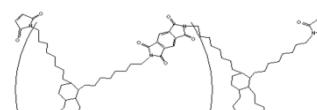
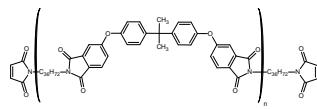
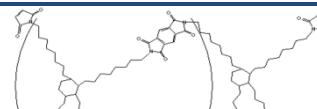
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<b>IMIDE-EXTENDED BISMALEIMIDES</b>								
R1090	BMI-3000 Gel	921213-77-6 (Y)	Bismaleimide oligomer that exhibits excellent flexibility and, on cure, forms very tough hydrophobic polyimides.	 Where n = 1 to 10	<ul style="list-style-type: none"> <li>Toughener</li> <li>Hydrophobic</li> <li>High adhesion *</li> <li>Superior thermal stability</li> </ul>	Red-Amber Gel	Solid	<ul style="list-style-type: none"> <li>Film adhesives</li> <li>Pre-applied adhesives</li> <li>Adhesion to metal</li> </ul>
R1155	BMI-689	Original: 682800-79-9  Current: 1911605-95-2 (Y)	A unique very low viscosity BMI resin	 contains unsaturation	<ul style="list-style-type: none"> <li>Toughener</li> <li>Hydrophobic</li> <li>High adhesion *</li> <li>Superior thermal stability</li> </ul>	Yellow to Amber Liquid	1,500 ± 500	<ul style="list-style-type: none"> <li>Base resin or additive in thermoset formulations designed for high temperature resistance</li> </ul>
R1171-P	BMI-5000 Powder	921213-77-6 (Y)	Imide-extended bismaleimide oligomer that exhibits excellent toughness in the cured state with intermediate cross-link density.	 Where n = 1 to 10	<ul style="list-style-type: none"> <li>Low cross-link density</li> <li>Non-tacky</li> <li>Film-forming</li> <li>Maleimide functional oligomer</li> <li>Cures to a tough thermoset</li> <li>Additive to enhance toughness in thermoset compositions</li> </ul>	Light Yellow Powder	Solid	<ul style="list-style-type: none"> <li>Film adhesives</li> <li>Thermally resistant adhesives</li> </ul>
R1171-T	BMI-5000 Toluene	921213-77-6 (Y)	Imide-extended bismaleimide oligomer that exhibits excellent toughness in the cured state with intermediate cross-link density.	 Where n = 1 to 10	<ul style="list-style-type: none"> <li>Low cross-link density</li> <li>Non-tacky</li> <li>Film-forming</li> <li>Maleimide functional oligomer</li> <li>Cures to a tough thermoset</li> <li>Additive to enhance toughness in thermoset compositions</li> </ul>	Dark Brown Liquid	1,000	<ul style="list-style-type: none"> <li>Film adhesives</li> <li>Thermally resistant adhesives</li> </ul>

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## IMIDE-EXTENDED BISMALEIMIDES continued...

R1191	BMI-1700	1224691-98-8 (Y)	An amorphous, low molecular weight bismaleimide oligomer that exhibits good adhesion to a variety of substrates	 Where n = 1 to 10	<ul style="list-style-type: none"> <li>Soluble in many reactive diluents</li> <li>Hydrophobic</li> <li>Superior thermal stability</li> <li>High adhesion to various substrates</li> </ul>	Amber High Viscous Liquid	30,000 ± 10,000 (60°C)	<ul style="list-style-type: none"> <li>Film adhesives</li> <li>Pre-applied adhesives</li> <li>Adhesion to metal</li> </ul>
R1203	BMI-1500	1290041-56-3 (Y)	An amorphous, low molecular weight bismaleimide oligomer that exhibits good adhesion to a variety of substrates	 Where n = 1 to 10	<ul style="list-style-type: none"> <li>Soluble in many reactive diluents</li> <li>Hydrophobic</li> <li>Superior thermal stability</li> <li>High adhesion to various substrates</li> </ul>	Amber Viscous Liquid	20,000 ± 10,000 (60°C)	<ul style="list-style-type: none"> <li>Film adhesives</li> <li>Pre-applied adhesives</li> <li>Adhesion to metal</li> </ul>
R1225	BMI-3000 CG	921213-77-6 (Y)	Low cost bismaleimide oligomer that exhibits excellent flexibility and, on cure, forms very tough hydrophobic polyimides.	 Where n = 1 to 10	<ul style="list-style-type: none"> <li>Low cost</li> <li>Toughener</li> <li>Hydrophobic</li> <li>High adhesion *</li> <li>Superior thermal stability</li> </ul>	Light Yellow Powder	Solid	<ul style="list-style-type: none"> <li>Film adhesives</li> <li>Pre-applied adhesives</li> <li>Adhesion to metal</li> </ul>
R1232	BMI-1400	1224691-98-8 (Y)	An amorphous, low molecular weight bismaleimide oligomer that exhibits good adhesion to a variety of substrates	 Where n = 1 to 10	<ul style="list-style-type: none"> <li>Specialty formulated lower viscosity version of BMI-1700</li> </ul>	Amber High Viscous Liquid	6,500 ± 1,000 (60°C)	<ul style="list-style-type: none"> <li>Film adhesives</li> <li>Pre-applied adhesives</li> <li>Adhesion to metal</li> </ul>
R1288	BMI-3000J Powder	921213-77-6 (Y)	Bismaleimide oligomer that exhibits excellent flexibility and, on cure, forms very tough hydrophobic polyimides	 Where n = 1 to 10	<ul style="list-style-type: none"> <li>Toughener</li> <li>Hydrophobic</li> <li>High adhesion *</li> <li>Superior thermal stability</li> </ul>	Light Yellow Powder	Solid	<ul style="list-style-type: none"> <li>Film adhesives</li> <li>Pre-applied adhesives</li> <li>Adhesion to metal</li> </ul>

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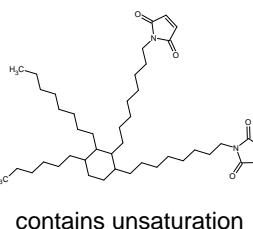
## IMIDE-EXTENDED BISMALEIMIDES continued....

R1288S	BMI-3000 Solution	921213-77-6 (Y)	Bismaleimide oligomer that exhibits excellent flexibility and, on cure, forms very tough hydrophobic polyimides	Designer Molecules, Inc. 10080 Willow Creek Rd., San Diego, CA 92131
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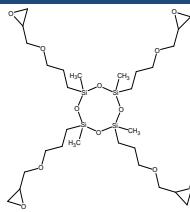
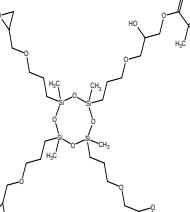
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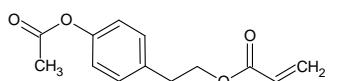
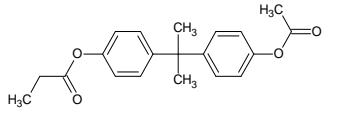
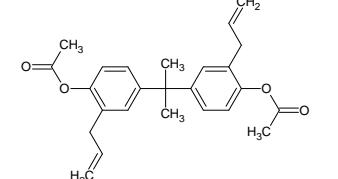
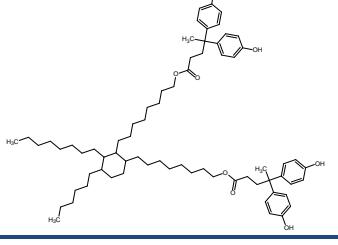
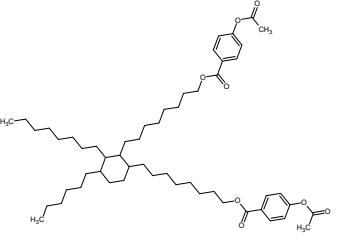
## IMIDE-EXTENDED BISMALEIMIDES continued....

R1442	BMI-689M	1911605-95-2 (Y)	A unique low viscosity liquid bismaleimide based on a non-hydrogenated dimer diamine backbone and serves as a low cost alternative to DMI's BMI-689	 contains unsaturation	<ul style="list-style-type: none"> <li>Low viscosity liquid BMI</li> <li>Hydrophobic</li> <li>Superior thermal stability</li> </ul>	Dark amber liquid	5,000 ± 2,000	<ul style="list-style-type: none"> <li>An additive or base resin in adhesives that are designed for high temperature resistance</li> </ul>
R1453	BMI-4200	N/A (N)	Designed to extend the range of applications suitable for use with DMI's imide extended BMI oligomers to those in need of a higher Tg and modulus. It can be processed in a resin system as a solid or dissolved in a solvent.	N/A	<ul style="list-style-type: none"> <li>Toughener</li> <li>Hydrophobic</li> <li>Increased Tg and modulus for demanding applications</li> <li>Superior thermal stability</li> </ul>	Yellow granules	Solid	<ul style="list-style-type: none"> <li>An additive to increase hydrophobicity and thixotropy</li> </ul>

## FUNCTIONAL CYCLOSILOXANES

R1362	CS-697	257284-60-9 (Y)	A polyglycidyl ether cyclosiloxane monomer		<ul style="list-style-type: none"> <li>Multifunctional</li> <li>UV curable</li> <li>Low chloride</li> <li>Low viscosity</li> <li>Colorless</li> </ul>	Colorless Liquid	200	<ul style="list-style-type: none"> <li>UV curable additive</li> </ul>
R1366	CS-783	921214-21-3 (Y)	Methacrylate epoxy functional hybrid cyclosiloxane monomer		<ul style="list-style-type: none"> <li>Dual cure mechanism</li> <li>Multifunctional</li> <li>UV Curable</li> <li>Low chloride</li> <li>Low viscosity</li> </ul>	Yellow Liquid	250	<ul style="list-style-type: none"> <li>Hybrid cures</li> <li>UV cures</li> <li>B-stageable adhesives</li> </ul>

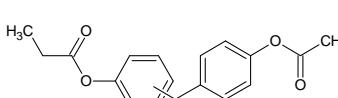
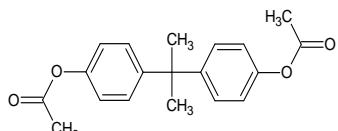
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<b>PHENYL ESTER EPOXY CURATIVES</b>								
R1146	EC-234	926305-16-0 (Y-LVE)	Phenyl ester epoxy curative hybrid		<ul style="list-style-type: none"> <li>• Hybrid cure</li> <li>• Low viscosity</li> </ul>	Light Yellow Liquid	40	<ul style="list-style-type: none"> <li>• UV adhesives</li> <li>• B-stageable adhesives</li> </ul>
R1147	EC-326	936555-33-8 (Y-LVE)	Bisphenol A based acetate/propionate epoxy curative		<ul style="list-style-type: none"> <li>• Hydrolytically resistant</li> <li>• Low melting point</li> <li>• Thermal stability</li> <li>• Hydrophobic</li> <li>• Toughener</li> <li>• Does not impede free radical cure</li> </ul>	White/Yellow Solid	2,000	<ul style="list-style-type: none"> <li>• Film adhesives</li> <li>• Pre-applied adhesives</li> </ul>
R1148	EC-392	107466-61-9 (Y)	Phenyl ester epoxy curative hybrid of diallyl bisphenol A		<ul style="list-style-type: none"> <li>• Dual cure mechanism</li> <li>• High cross-link density</li> <li>• Multifunctional</li> <li>• Thermal stability</li> </ul>	Amber Liquid	2,500	<ul style="list-style-type: none"> <li>• B-stageable adhesives</li> <li>• Epoxy and BMI co-curable</li> </ul>
R1149	EC-1074	926657-64-9 (Y)	A tetra-phenol epoxy curative derived from dimerdiol		<ul style="list-style-type: none"> <li>• Low modulus</li> <li>• Toughener</li> <li>• Hydrolytically resistant thermosets</li> <li>• Hydrophobic</li> <li>• Thermal stability</li> </ul>	Amber Glassy Solid	Solid	<ul style="list-style-type: none"> <li>• Film Adhesives</li> <li>• Pre-applied adhesive compositions</li> </ul>
R1165	EC-861	1071523-12-0 (Y)	Phenyl acetate epoxy curative		<ul style="list-style-type: none"> <li>• Low modulus</li> <li>• Toughener</li> <li>• Hydrolytically resistant thermosets</li> <li>• Hydrophobic</li> <li>• Thermal stability</li> <li>• Does not impede free radical cure</li> </ul>	Amber/Yellow Liquid	2,500	<ul style="list-style-type: none"> <li>• Low stress epoxy thermosets</li> </ul>

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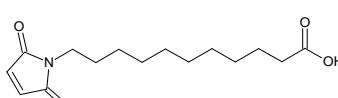
## PHENYL ESTER EPOXY CURATIVES continued....

R1170	EC-298	1044794-71-7 (Y-LVE)	Difunctional phenyl ester epoxy curative		<ul style="list-style-type: none"> <li>Stable</li> <li>Low viscosity</li> <li>Does not impede free radical cure</li> </ul>	Light Yellow Liquid	500	<ul style="list-style-type: none"> <li>Thermoset adhesives</li> <li>Curative for epoxy / (meth)acrylate hybrids</li> <li>Hybrid epoxy/free radical thermosets</li> </ul>
R1227	EC-312	10192-62-8 (Y)	Difunctional phenyl ester epoxy curative		<ul style="list-style-type: none"> <li>Low cost</li> <li>Low melting point</li> <li>Thermal stability</li> <li>Hydrophobic</li> <li>Does not impede free radical cure</li> </ul>	Fine White Powder	Solid	<ul style="list-style-type: none"> <li>Film adhesives</li> <li>Pre-applied adhesives</li> </ul>

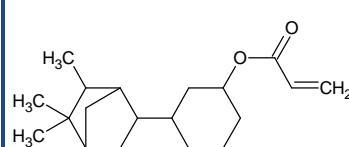
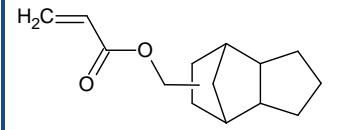
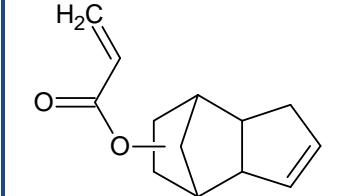
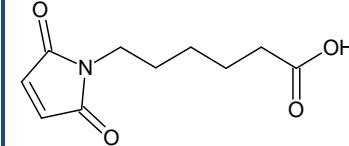
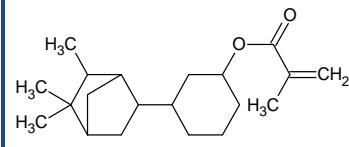
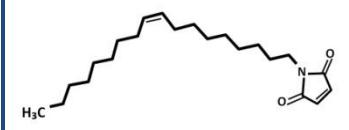
## LATENT EPOXY CATALYSTS

R1198 R1207 R1208 R1209	ECAT Series	1253404-90-8 (Y) 1313999-39-1 (Y) 1325729-75-6 (Y) 1332716-20-7 (Y)	Imidazole Epoxy Catalysts	Unavailable	<ul style="list-style-type: none"> <li>Good solubility in most epoxy monomers</li> <li>Excellent latency characteristics</li> <li>Can be used as a catalyst or curative</li> <li>Turnable cures</li> <li>Promotes clean, rapid monomodal cures</li> </ul>	Refer to TDS	Solid	<ul style="list-style-type: none"> <li>Electronic mold compounds</li> <li>Underfills</li> </ul>
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## MONOFUNCTIONAL MONOMERS

R1121	MM-281	57079-01-3 (Y-LVE)	Maleimidoundecanoic Acid (MUDA)		<ul style="list-style-type: none"> <li>Flexible aliphatic backbone</li> <li>Maleimide and carboxylic acid functional groups</li> <li>Adhesion promoter</li> </ul>	White to Off-white Powder	N/A	<ul style="list-style-type: none"> <li>Intermediate for ester and amide linked maleimide monomers</li> </ul>
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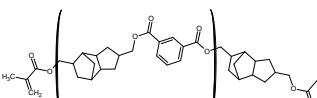
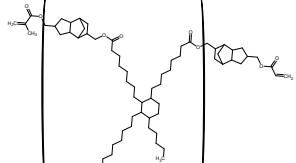
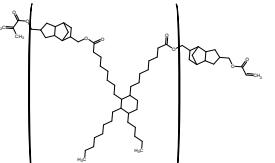
# PRODUCT SELECTOR GUIDE

PART NUMBER	CATALOG NAME	CAS / TSCA Listed (Y/N)	DESCRIPTION	STRUCTURE**	FEATURES	APPEARANCE	VISCOSITY (cP @ 25°C)	SUGGESTED APPLICATIONS
<b>MONOFUNCTIONAL MONOMERS continued...</b>								
R1134	MM-290	903876-45-9 (Y)	Isobornyl Cyclohexyl Acrylate		<ul style="list-style-type: none"> <li>Lower weight loss on cure than Isobornyl Acrylate (IBOA)</li> <li>Mild, pleasant odor</li> <li>Hydrolytic resistance</li> </ul>	Light Tan Liquid	250	<ul style="list-style-type: none"> <li>UV or peroxide cured resins, coatings, or adhesives</li> </ul>
R1139	MM-220	93962-84-6 (Y-LVE)	Tricyclodecane Acrylate		<ul style="list-style-type: none"> <li>Low weight loss on cure</li> <li>Helps reduce cure shrinkage</li> <li>Low viscosity</li> </ul>	Light Yellow Liquid	< 100	<ul style="list-style-type: none"> <li>UV cure coatings</li> </ul>
R1173	MM-204	33791-58-1 (Y)	Monofunctional acrylate monomer		<ul style="list-style-type: none"> <li>Low viscosity</li> <li>High glass transition temperature</li> <li>Low cure shrinkage</li> <li>Hydrolytically resistant</li> <li>Diluent for thermoset resins</li> <li>High Tg</li> </ul>	Light Tan Liquid	50	<ul style="list-style-type: none"> <li>UV or peroxide cured resins, coatings, or adhesives</li> </ul>
R1175	MM-211	55750-53-3 (N)	An intermediate chain length, maleimide terminated carboxylic acid		<ul style="list-style-type: none"> <li>Flexible aliphatic backbone</li> <li>Maleimide and carboxylic acid functional groups</li> <li>Adhesion promoter</li> </ul>	White/Light Yellow Powder	N/A	<ul style="list-style-type: none"> <li>Intermediate for ester and amide linked maleimide monomers</li> </ul>
R1197	MM-304	N/A (N)	Isobornyl Cyclohexyl Methacrylate		<ul style="list-style-type: none"> <li>Very low color</li> <li>Lower weight loss on cure than Isobornyl Methacrylate (IBOMA)</li> <li>Mild, pleasant odor</li> <li>Hydrolytic resistance</li> </ul>	Colorless Liquid	80	<ul style="list-style-type: none"> <li>Dental</li> <li>Reactive diluent</li> </ul>
R1233	MM-348	132010-64-1 (N)	Maleimide Terminated 9-Octadecene		<ul style="list-style-type: none"> <li>Maleimide functional reactive diluents</li> </ul>	Light brown	Semi-solid	<ul style="list-style-type: none"> <li>Reactive diluent</li> </ul>

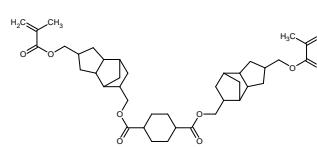
# PRODUCT SELECTOR GUIDE

PART NUMBER	CATALOG NAME	CAS / TSCA Listed (Y/N)	DESCRIPTION	STRUCTURE**	FEATURES	APPEARANCE	VISCOSITY (cP @ 25°C)	SUGGESTED APPLICATIONS
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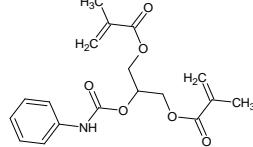
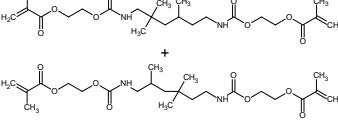
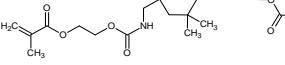
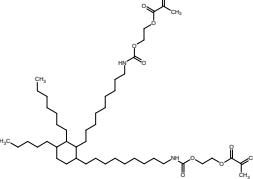
## POLYESTER ACRYLATE METHACRYLATES (PEAM)

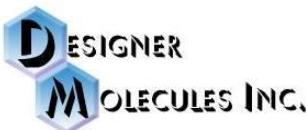
R1096	PEAM-645	921213-39-0 (Y)	Polyester acrylate/methacrylate	 Where n = 1 to 5	<ul style="list-style-type: none"> <li>High Tg</li> <li>High modulus</li> <li>Low CTE</li> <li>High adhesion I</li> <li>Thermal stability</li> </ul>	Amber Liquid	6,500	<ul style="list-style-type: none"> <li>Low CTE thermosets</li> </ul>
R1111	PEAM-1044	921214-61-1 (Y)	Polyester acrylate/methacrylate	 Where n = 1 to 5	<ul style="list-style-type: none"> <li>Low warpage</li> <li>Hydrophobic</li> <li>High adhesion *</li> <li>Thermal stability</li> </ul>	Amber Liquid	(40°C)	<ul style="list-style-type: none"> <li>Low stress coatings</li> </ul>
R1144	PEAM-1769	921214-61-1 (Y)	Polyester acrylate/methacrylate	 Where n = 1 to 5	<ul style="list-style-type: none"> <li>Ultra-low modulus</li> <li>Hydrophobic</li> <li>High adhesion *</li> <li>High thermal stability</li> <li>Adhesion to metals</li> <li>Flexibilizer</li> </ul>	Amber Liquid	4,500	<ul style="list-style-type: none"> <li>Low stress coatings</li> </ul>

## POLYESTER METHACRYLATES (PEM)

R9990	PEM-665	N/A (N)	Methacrylate terminated polyester oligomer		<ul style="list-style-type: none"> <li>Low color</li> <li>Low cure shrinkage</li> <li>Thermal stability</li> <li>Tough</li> </ul>	Light Yellow Tint Liquid	6,500 (50°C)	<ul style="list-style-type: none"> <li>Dental BisGMA replacement</li> </ul>
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# PRODUCT SELECTOR GUIDE

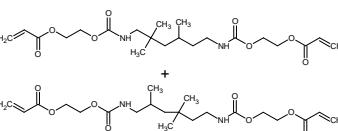
PART NUMBER	CATALOG NAME	CAS / TSCA Listed (Y/N)	DESCRIPTION	STRUCTURE**	FEATURES	APPEARANCE	VISCOSITY (cP @ 25°C)	SUGGESTED APPLICATIONS
<b>FUNCTIONAL URETHANES</b>								
R1095	U-793	869488-57-3 920758-62-9 902742-80-9 (Y)	Urethane resin functionalized with a methacrylate and an epoxy	Unavailable	<ul style="list-style-type: none"> <li>Low color</li> <li>Low cure shrinkage</li> <li>Thermal stability</li> <li>Tough</li> </ul>	Light Yellow Tint Liquid	6,500 (50°C)	<ul style="list-style-type: none"> <li>Dental</li> </ul>
R1102	U-835	869488-57-3 1003557-45-6 1003612-76-7 (Y-LVE)	Urethane resin functionalized with acrylate and methacrylate end groups	Unavailable	<ul style="list-style-type: none"> <li>Low modulus</li> <li>Excellent hydrolytic resistance</li> <li>High adhesion *</li> <li>Adhesion to metals</li> <li>Flexibilizer</li> </ul>	Light Yellow Liquid	20,000	<ul style="list-style-type: none"> <li>Dental</li> <li>Moisture resistant coatings</li> </ul>
R1216	U-347	1371570-15-8 (N)	Phenyl glycerol urethane dimethacrylate (PGDMA)		<ul style="list-style-type: none"> <li>Low cure shrinkage</li> <li>Colorless</li> <li>Good refractive index</li> <li>Not bisphenol A based</li> </ul>	Clear Colorless Liquid	9,500	<ul style="list-style-type: none"> <li>Dental</li> <li>Moisture resistant coatings</li> </ul>
R1228	U-471	72869-86-4 (Y)	TMDI urethane dimethacrylate monomer		<ul style="list-style-type: none"> <li>Low color</li> <li>Low cure shrinkage</li> </ul>	Slight Yellow Liquid	8,000	<ul style="list-style-type: none"> <li>Dental</li> </ul>
R1230	U-483	N/A (N)	IPDI urethane dimethacrylate		<ul style="list-style-type: none"> <li>Low viscosity</li> <li>Low cure shrinkage</li> <li>Colorless</li> <li>Not bisphenol A based</li> </ul>	Clear Colorless Liquid	5,000	<ul style="list-style-type: none"> <li>Dental</li> <li>Moisture resistant coatings</li> <li>Light cure coatings</li> </ul>
R1238	U-847	86499-57-3 (N)	DDI urethane dimethacrylate monomer		<ul style="list-style-type: none"> <li>Low modulus</li> <li>Low color</li> <li>Low cure shrinkage</li> <li>Hydrophobic</li> <li>Flexibilizer</li> </ul>	Light Yellow Liquid	2,500	<ul style="list-style-type: none"> <li>Dental</li> <li>Moisture resistant coatings</li> </ul>



# PRODUCT SELECTOR GUIDE

PART NUMBER	CATALOG NAME	CAS / TSCA Listed (Y/N)	DESCRIPTION	STRUCTURE**	FEATURES	APPEARANCE	VISCOSITY (cP @ 25°C)	SUGGESTED APPLICATIONS
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## FUNCTIONAL URETHANES continued...

R1266	U-443	67910-48-9 (N)	TMDI urethane diacrylate monomer		<ul style="list-style-type: none"> <li>• Excellent Curing Properties</li> </ul>	Clear, Colorless, Oil	5,500	<ul style="list-style-type: none"> <li>• Light-cured coating resins</li> </ul>
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## FORMULATED PRODUCTS

R1353	DMI-2575	Mixture (Y)	Unique low viscosity liquid bismaleimide based formulation suitable for use as a base resin system for spray applications	Mixture	<ul style="list-style-type: none"> <li>• Pre-catalyzed</li> <li>• Extended pot-life (&lt; 6mo. @ room temp)</li> <li>• Hydrophobic</li> <li>• Solvent free</li> <li>• Superior thermal stability</li> <li>• Does not require refrigerated shipping</li> </ul>	Amber liquid	1400 ± 300	<ul style="list-style-type: none"> <li>• Spray coating applications</li> </ul>
R1397	DMI-3006A	Mixture (Y)	Modified polyimide based negative type photoresist	Mixture	<ul style="list-style-type: none"> <li>• Low modulus</li> <li>• Very high electrical reliability</li> <li>• UV cured-low thermal requirements</li> <li>• Low cure shrinkage</li> <li>• High heat resistance</li> <li>• Good electrical properties</li> </ul>	Amber liquid	250	<ul style="list-style-type: none"> <li>• Wafer buffer coating</li> </ul>
R1398	DMI-2555	Mixture (Y)	A BMI-based coating for dispense applications	Mixture	<ul style="list-style-type: none"> <li>• Pre-catalyzed</li> <li>• Low modulus</li> <li>• Hydrophobic</li> <li>• Excellent hydrolytic resistance</li> <li>• Low stress</li> <li>• Adhesion to metals</li> <li>• Flexibilizer</li> </ul>	Yellow to Dark Amber Liquid	900 ± 200	<ul style="list-style-type: none"> <li>• Die top coating applications</li> </ul>



# PRODUCT SELECTOR GUIDE

PART NUMBER	CATALOG NAME	CAS / TSCA Listed (Y/N)	DESCRIPTION	STRUCTURE**	FEATURES	APPEARANCE	VISCOSITY (cP @ 25°C)	SUGGESTED APPLICATIONS
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## IMIDE-LINKED

R1363	ILR-1363	Mixture (N)	A high molecular weight, curable oligomer mixture suitable for use as the base resin in a variety of microelectronic assembly applications	Unavailable	<ul style="list-style-type: none"> <li>High strength</li> <li>Flexible</li> <li>Hydrophobic</li> <li>High heat resistance</li> <li>Good electrical properties</li> </ul>	Amber liquid	750	<ul style="list-style-type: none"> <li>A polyimide (PI) replacement resin</li> </ul>
R1399	ILR-1399	3027864-14-5 (N)	A proprietary high molecular weight functionalized polyimide designed specifically to resist degradation when exposed to elevated temperatures for extended durations	Unavailable	<ul style="list-style-type: none"> <li>Thermally curable</li> <li>Tough</li> <li>Superior thermal stability</li> <li>Hydrophobic</li> </ul>	Amber liquid	15,000 @ 25% Solids	<ul style="list-style-type: none"> <li>For use in LED assembly applications or where high temperature stability is required.</li> </ul>
R1400	ILR-1400	2489312-38-9 (N)	High molecular weight non-functionalized polyimide with excellent physical properties	Unavailable	<ul style="list-style-type: none"> <li>Very Flexible film</li> <li>Good thermal stability (<math>T_d = &gt; 400^\circ\text{C}</math>)</li> <li>Good wetting property post b-stage on Copper foil</li> <li>Superior dielectric properties</li> <li>Low water absorption</li> <li>Soluble in most aromatic and aliphatic solvents</li> </ul>	Amber liquid	1,500 @ 15% Solids	<ul style="list-style-type: none"> <li>For use where flexibility and good electrical properties are required</li> </ul>
R1401	ILR-1401	Mixture (Y)	A high molecular weight, curable oligomer mixture suitable for use as the base resin in a variety of microelectronic assembly applications	Unavailable	<ul style="list-style-type: none"> <li>Very low material shrinkage</li> <li>Flexible / high strength</li> <li>Curability &amp; Very low modulus</li> <li>Hydrophobic / low water absorption</li> </ul>	Amber liquid	5,000 @ 20% Solids	<ul style="list-style-type: none"> <li>For use in applications that require high temperature resin performance such as CCL</li> </ul>
R1402	ILR-1402	Mixture (Y)	A high molecular weight, curable oligomer mixture suitable for use as the base resin in a variety of microelectronic assembly applications	Unavailable	<ul style="list-style-type: none"> <li>Very low material shrinkage</li> <li>Flexible / high strength</li> <li>Curability &amp; Very low modulus</li> <li>Hydrophobic / low water absorption</li> </ul>	Amber liquid	4,000 @ 20% Solids	<ul style="list-style-type: none"> <li>For use in applications that require high temperature resin performance such as CCL</li> </ul>
R1457	ILR-1457	3027864-14-5 (N)	A proprietary high molecular weight functionalized polyimide designed specifically to resist degradation when exposed to elevated temperatures for extended durations	Unavailable	<ul style="list-style-type: none"> <li>Thermally curable</li> <li>Tough</li> <li>Superior thermal stability</li> <li>Hydrophobic</li> </ul>	Amber liquid	2,500 @ 25% Solids	<ul style="list-style-type: none"> <li>For use in high temperature adhesive applications</li> </ul>

**ALL DATA PROVIDED FOR REFERENCE ONLY AND MAY VARY BY TEST METHOD**

- \* Various substrates      \*\* Many of the structures are an idealized representation of a statistical distribution
- \*\*\* Supercooled      \*\*\*\* Storage at < 25°C will result in precipitation of some solids. The fully liquid state can be regenerated by warming to 40°C until all solids dissolve
- LVE Material manufactured under Low Volume Exemption (LVE) in compliance with Section 5(h)(4) of the Toxic Substances Control Act (TSCA), 15 U.S.C.

**TO PLACE AN ORDER, REQUEST SAMPLES, OR TO SPEAK WITH US ABOUT DEVELOPING A PRODUCT FOR YOUR CHEMICAL NEEDS, CONTACT US AT 858-348-1122.**