ENTROPY RESINS

MAKE THINGS BETTER

Performance Biobased Resin Systems

Formulations catering to a wide range of processes and applications

Technical Data

All technical data is provided in good faith and is based on Entropy Resins, Inc. best knowledge. Entropy Resins, Inc. does not guarantee any of this data nor the misuse of its products or the consequences because of conditions that are beyond their control.

Room Temperature Systems

Epoxy/ Hardener	Key Features	Applications	Potential Use	PERFORMANCE DATA: Tensile Modulus (psi)	Tensile Strength (psi)	Elongation (%)	Flexural Modulus (psi)	Flexural Strength (psi)	Compression Strength (psi)	Tg Onset (°C)	Tg Ultimate (°C)	Hardness (Shore D)	Biobased Carbon Content	PROCESSING DATA: Mix Ratio by Volume	Mix Ratio by Weight	Viscosity (A/B/Mixed, cPs, @25°C)	Pot Life (mins. @25°C)	Tack Free Time (hrs, @25°C)	Recommended Full Cure
ONE/ ONF	▸ USDA BioPreferred Certified ▸ High elongation ▸ Slight amber color	▸ General laminating/ adhesive/ coating system ▸ Hand layup ▸ Vacuum Molding	▸ Woodworking ▸ Wood laminates ▸ Marine ▸ Surfboards	380k	8,200	7	330k	11,170	10,460	47	86	70-80	37%	2:1	100:48	650/ 450/ 600	22	3	7 days @ **25°C**
CLR/ CLX	▸ Best in class clarity ▸ UV stability ▸ Yellowing Resistance	▸ Professional laminating ▸ Coating system ▸ Hand layup	▸ Clear coatings ▸ Marine ▸ Surfboards	450k	9,500	6	440k	14,000	11,330	43	77	70-80	17%	2:1	100:47	1850/ 100/ 580	15	2	7 days @ **25°C**
CLR/ CLF	▸ Excellent clarity ▸ UV stability ▸ Low yellowing	▸ General laminating/ adhesive/ coating system ▸ Hand layup ▸ Vacuum Molding	▸ Clear coatings ▸ Tooling ▸ Marine ▸ Surfboards	440k	9,500	5	440k	13,500	11,330	39	65	70-80	17%	2:1	100:47	1850/ 265/ 725	25	4	7 days @ **25°C**
CLR/ CLS	▸ Excellent clarity ▸ UV stability ▸ Low yellowing ▸ Long working time	▸ General laminating/ adhesive/ coating system ▸ Hand layup ▸ Vacuum Molding	▸ Clear coatings ▸ Tooling ▸ Marine ▸ Surfboards	468k	9,800	6	430k	14,580	12,520	43	77	70-80	25%	2:1	100:48	1850/ 500/ 1030	50	8	7 days @ **25°C** Post cure recommended
CCR/ CCF	▸ Excellent clarity ▸ UV stability ▸ Excellent air release	▸ Casting ▸ Potting ▸ Embedments at thicknesses < 1 in. or volumes < 1 qt.	▸ Pour-on coatings ▸ Art/hobby projects	448k	8,140	6	390k	11,850	12,380	32	48	70-80	18%	2:1	100:43	1850/ 35/ 280	90	24	7 days @ **25°C** Post cure recommended
CCR/ CCS	▸ Excellent clarity ▸ UV stability ▸ Excellent air release ▸ Low exotherms	▸ Casting ▸ Potting ▸ Embedments at thicknesses > 1 in. or volumes > 1 qt.	▸ Pour-on coatings ▸ Art/hobby projects	440,850	7,910	6.5	409,670	11,100	10,860	36	53	70-80	18%	2:1	100:43	1850/ 25/ 195	360	72	7 days @ **25°C** Post cure recommended

Infusion Systems

Epoxy/ Hardener	Key Features	Applications	Potential Use	Tensile Modulus (psi)	Tensile Strength (psi)	Elongation (%)	Flexural Modulus (psi)	Flexural Strength (psi)	Compression Strength (psi)	Tg Onset (°C)	Tg Ultimate (°C)	Hardness (Shore D)	Biobased Carbon Content	Mix Ratio by Weight	Viscosity (A/B/Mixed, cPs, @ 25°C)	Pot Life (mins, @ 25°C)	Tack Free Time (hrs, @ 25°C)	Recommended Full Cure
				PERFORMANCE DATA											PROCESSING DATA			
CLR/ INF	▸ Excellent mechanical properties ▸ Low viscosity	▸ Infusion ▸ RTM ▸ Lite RTM	▸ Marine ▸ Transportation	590k	10,600	2.5	525,500	18,050	16,890	50	77	70-80	19%	100:33	1850/ 42/ 490	45	8	7 days @ **25°C** Post cure recommended
CLR/ CLS/ INH*	▸ Excellent clarity ▸ UV stability ▸ Low yellowing ▸ Low viscosity	▸ Infusion ▸ RTM ▸ Lite RTM	▸ Marine ▸ Transportation	476,500	8,920	3	445,500	14,270	-	-	57	70-80	17%	100:28:15*	630 (Mixed)*	120*	16-20*	7 days @ **25°C** Post cure recommended
CLR/ CLX/ INH*	▸ Excellent clarity ▸ UV stability ▸ Low yellowing ▸ Low viscosity	▸ Infusion ▸ RTM ▸ Lite RTM	▸ Marine ▸ Transportation	472,500	8,530	2.5	458,500	14,500	-	-	61	70-80	17%	100:19:19*	360 (Mixed)*	75*	8-10*	7 days @ **25°C** Post cure recommended

* Can be varied based on percentage of INH used in system

Heat-Assisted Systems

Epoxy/ Hardener	Key Features	Applications	Potential Use	Tensile Modulus (psi)	Tensile Strength (psi)	Elongation (%)	Flexural Modulus (psi)	Flexural Strength (psi)	Compression Strength (psi)	Tg Onset (°C)	Tg Ultimate (°C)	Hardness (Shore D)	Biobased Carbon Content	Mix Ratio by Volume	Mix Ratio by Weight	Viscosity (A/B/Mixed, cPs, @ 25°C)	Pot Life (mins, @ 25°C)	Recommended Full Cure
				PERFORMANCE DATA												PROCESSING DATA		
ONE/ HVA	▸ High bio-content ▸ Excellent adhesion ▸ High elongation ▸ Good thixotropic properties	▸ General adhesive ▸ Compression molding ▸ Wood bonding	▸ Wood laminates ▸ Woodworking	220k	4,270	15	88k	3,100	-	-	-	-	51%	-	100:70	650/ 14,000/ 5100	150	30 minutes @ **82°C**
CPM/ CPF	▸ USDA Biopreferred Certified ▸ Excellent adhesion ▸ High modulus ▸ Good elongation	▸ Compression molding	▸ Ski ▸ Snowboard ▸ Wakeboard ▸ Skateboard ▸ Wood laminates	435,700	8,860	6	405,790	13,560	12,630	43	68	70-80	28%	2:1	100:43	1300/ 2200/ 1230	20	15 minutes @ **82°C**
CPM/ CPL	▸ USDA Biopreferred Certified ▸ Excellent adhesion ▸ High modulus ▸ High elongation ▸ Long working time	▸ Compression molding	▸ Ski ▸ Snowboard ▸ Wakeboard ▸ Skateboard ▸ Wood laminates	436k	8,990	6	412,510	13,450	11,410	45	69	70-80	31%	2:1	100:40	1300/ 450/ 880	50	18-20 minutes @ **82°C**

ENTROPY RESINS

SUPER SAP

PROCESSES

- Hand Layup
- Compression Molding
- Castings
- Infusion
- Prepegs

APPLICATIONS

- Sports and Rec
- Transportation
- Art and Hobby
- Solid Surfaces
- Coatings

USDA BIOPREFERRED CERTIFIED

Industries only epoxy formulations that meet USDA BioPreferred Certification standards

REDUCED ENVIRONMENTAL IMPACT

Biobased materials sourced as a co-product or waste stream of other industrial processes

50% reduction in GHG production from use of green chemistry

CONTACT US

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USDA CERTIFIED BIOBASED PRODUCT
PRODUCT 37%

1% FOR THE PLANET

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