ENTROPY RESINS®

Entropy Resins are a new generation of epoxies

Biobased | Sustainable | Consistent | Reliable

#entropyresins
#supersap
#biobased
#makethingsbetter

Proud member of 1% FOR THE PLANET

ENTROPYRESINS.COM | ISO9001:2015 CERTIFIED

Contents

Our Philosophy

Here's us in a nutshell.

VISION

Make things better.

MISSION

It's simple. We're doing the right thing. Shaping the next generation of epoxy formulations, we create high-performance, environmentally friendlier, more sustainable epoxies, all of which is proven with scientific data. We bring the same reliability and integrity to crafting our biobased epoxy products as we do to growing our business.

MODEL

There is no better chemistry than that inspired by Mother Nature. Our biobased epoxies are formulated with renewable resources to the highest extent possible. Through green chemistry, biobased and rapidly renewable raw materials, and efficient manufacturing we conserve energy, minimise harmful byproducts and reduce greenhouse gas emissions of our products from processing.

SOCIAL CONSCIENCE

Starting in the 1980s, Gougeon Brothers, Inc. developed a culture of giving back to make the world we live in a better place. Currently a committee of Gougeon Brothers employees distribute 3% of profits annually to a wide variety of causes and chairities. Entropy Resins® also participates in 1% for the Planet, donating 1% of sales to environmental causes.

Wessex Resins & Adhesives Limited manufactures and distributes Entropy Resins throughout Europe, Africa and the Middle East. Wessex donates 1% from the sales revenue of Entropy Resins products to 1% For The Planet, in addition to donating a percentage of overall company profits to local charities and good causes.

Our Epoxies

They're not just made better;
they're made responsibly.

SUPER SAP

We developed Super Sap technology to reduce the impact of Entropy Resins on the environment without compromising performance. Through green chemistry, biobased and rapidly renewable raw materials, and efficient manufacturing under ISO 9001:2015, Super Sap technology is how we conserve energy, minimise harmful byproducts and reduce greenhouse gas emissions of our products from processing.

We believe a major part of sustainability is transparency. That's why we use third-party laboratories to measure the biobased content of our products. Every Super Sap resin product is certified under the US Department of Agriculture (USDA) Certified Biobased Product label program. Using Life Cycle Assessment (LCA), we quantify how Super Sap technology reduces environmental impact from production that ultimately reduces the carbon footprint of our customers' products. As scientists and engineers, we believe that green should be more than a colour. We back up our sustainability claims with hard data.

BIOBASED CONTENT

Using a method of radiocarbon dating developed by USDA and international standards bodies, we verify the carbon content in our products through third-party laboratory testing. We're transparent about how much of our product comes from bio-materials such as plants versus petroleum-based raw materials.

This testing allows Entropy Resins to participate in the USDA BioPreferred Program. We developed and manufactured the first epoxy product certified under the USDA Certified Biobased Product label program. Today, all Entropy Resins Super Sap formulations meet the program criteria and are USDA Certified Biobased Products.

LIFE CYCLE ASSESSMENT

We know that even biobased products cause environmental impacts. This is why we conducted a Life Cycle Assessment (LCA) to determine how replacing petroleum-based raw materials with biobased Super Sap formulations affects the environment.

We don't grow plants and turn them into epoxy. The biobased raw materials used to create our epoxy resins and hardeners are sourced as co-products or waste products of other industrially important processes. These materials don't compete with food sources or displace food-based agriculture. Through this choice of raw materials and use of green chemistry we are able to reduce our environmental impact from processing. LCA is a tool to **quantify** this benefit.

LCA evaluates the environmental impact of a product through its entire life cycle. It begins with the extraction and processing of the raw materials and encompasses manufacturing, distribution, use, recycling, and final disposal. We work with third party product stewardship practitioners to create LCA models for our products that are based on international standards. Our customers can use these models to help build LCA models for their own end products. We provide our customers with hard data so they understand our products' life cycle and can quantify the environmental benefits of using Entropy in their own products.

The molecule is what you make of it.

THE IMPACT

Manufacturing one litre of Entropy Resins epoxy with Super Sap technology saves over the industry average:

Energy saved - charging 350 smartphones

Water saved - 20 (500ml) servings of water

Pollution saved - driving 5 kilometres in a car

1 Litre of Entropy Resin Saves

20 servings of water* (500ml)

350 smartphone charges of energy*

5 kilometres of car pollution*

* over industry standard manufacturing processes

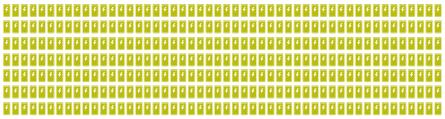
20 servings of water saved* (500ml;)

* over industry standard manufacturing processes for one litre of epoxy resin.

5 kilometres of car pollution saved*

* over industry standard manufacturing processes for one litre of epoxy resin.

350 smartphone charges of energy saved*

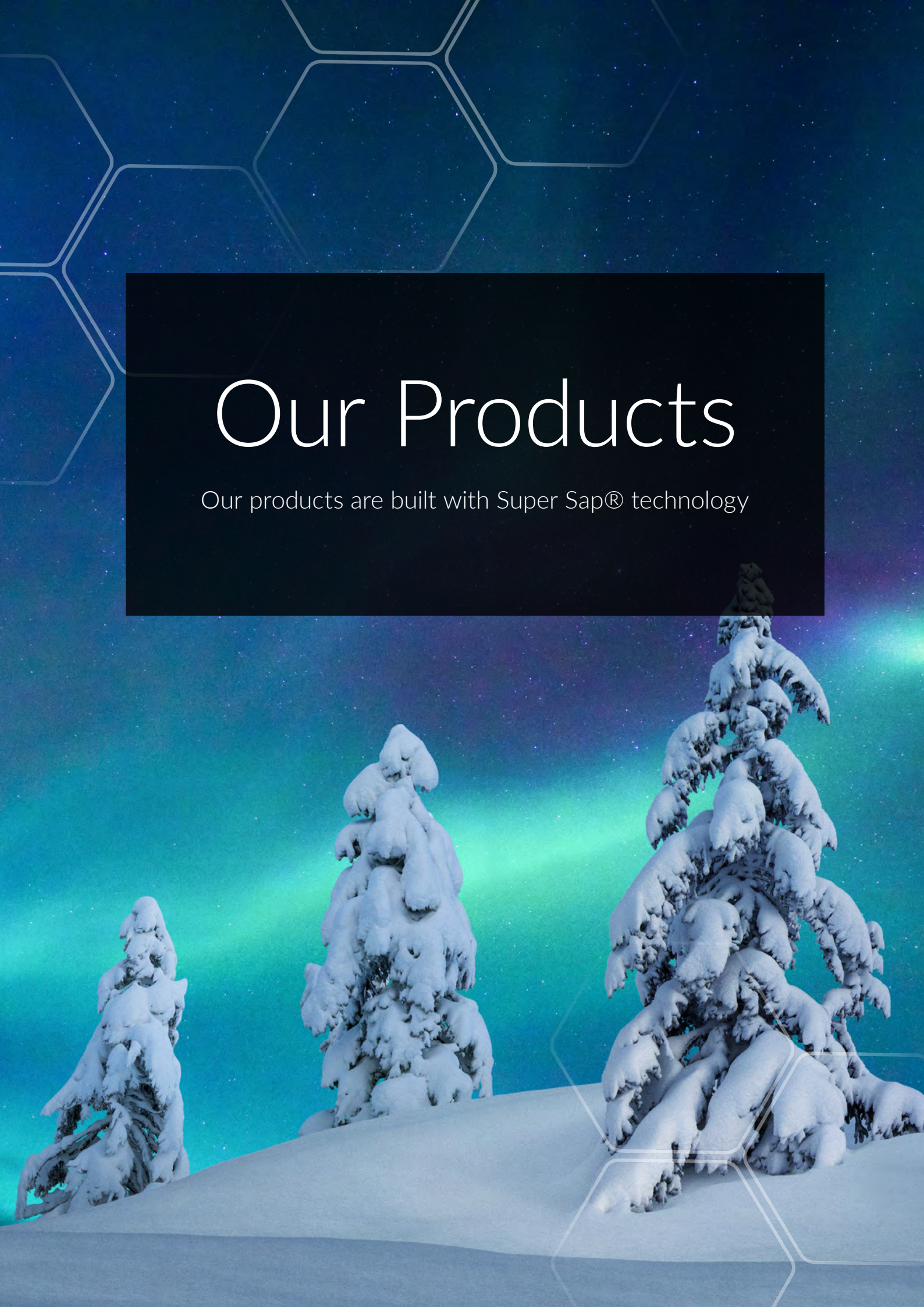


* over industry standard manufacturing processes for one gallon of epoxy resin.

Our customers can evaluate the benefits of bio-based epoxy systems and how they affect the environment by viewing the full report on entropyresins.com

Our Products

Our products are built with Super Sap® technology

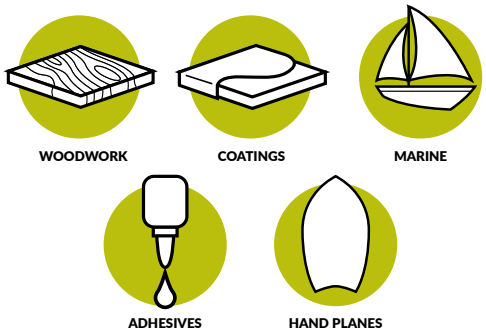


ONE

High Biobased Laminating Epoxy Resin

Our highest bio-based content system, great for composite and coating applications.

Popular Uses



Specifications

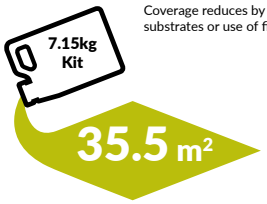
Resin / Hardener	Mix Ratio by Volume	Mix Ratio by Weight	Mixed Viscosity (mPas @ 25°C)	Pot Life (min @ 25°C)	Tack Free (hr @ 25°C)	Recommended Full Cure
PROCESSING DATA						
FAST						
ONE	2	100	1020	18	3	7 days @ 25°C
ONF	1	43				
Key Features	▸ **USDA BioPreferred Certified,** High Elongation, Slight Amber Colour					
Applications	▸ General Laminating/Adhesive/Coating System, Hand Layup					
SLOW						
ONE	2	100	1060	43	8	7 days @ 25°C post cure recommended
ONS	1	43				
Key Features	▸ **USDA BioPreferred Certified,** High Elongation, Slight Amber Colour					
Applications	▸ General Laminating/Adhesive/Coating System, Hand Layup					

ENTROPY RESINS | SUPER SAP

Pouring Quick Guide 100:43

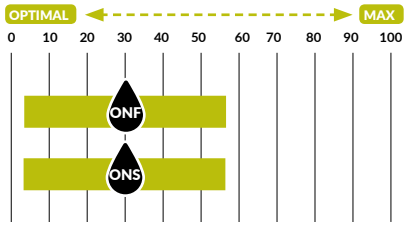
Resin GRAMS	Hardener GRAMS
25	10.75
50	21.5
75	32.25
100	43
150	64.5
200	86
250	107.5

Coverage Square Metres



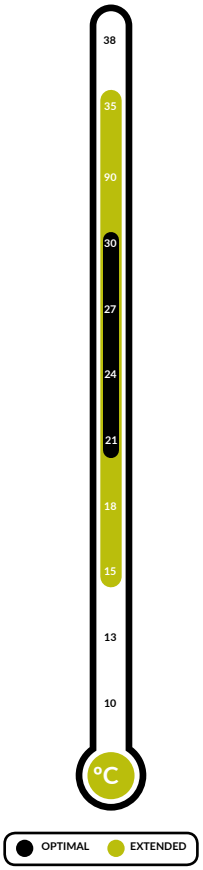
Coverage reduces by up to 50% over porous substrates or use of fibre reinforcements

Ideal Working Humidity Range % Humidity



Better in low humidity environments, especially when used outside the optimal product temperature range.

Working Temp Range °C



Application Tips

For best results, measure two components by weight at the correct mix ratio.

Always mix product thoroughly for at least 2 minutes, scraping all surfaces of the container to ensure complete mixing.

Try to use product in a controlled temperature environment within the optimal specifications of the product. Avoid high humidity or cold ambient temperatures.

For optimal bonding performance, be sure surface is dry and free of dirt, debris and oils. Mechanical preparation of the surface from sanding is highly recommended.

Build sample coupons using proposed materials and processes to fully understand curing characteristics of the epoxy in your working environment and compatibility of the epoxy with other materials.

FOR MORE TIPS, VISIT US ON THE WEB AT

entropyresins.com/how-to-guide

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TDS

TECHNICAL DATA SHEET

ENTROPY RESINS®

High Biobased Laminating System

High Biobased Epoxy Resin for general laminations and coatings.

Product Overview

ONE is a general purpose laminating resin with high biobased content for composite laminating, coating, and adhesive applications. This system features a faster speed, low viscosity and includes quick air-releasing properties ideal for fibre-reinforced composite laminations and coatings. ONE is a USDA Certified BioPreferred® Product with 30% biobased content.

	ONF FAST	ONS SLOW
MECHANICAL DATA		
Tensile Modulus (ASTM D638)	2.7 GPa	3.2 GPa
Tensile Strength (ASTM D638)	53.2 MPa	67.6 MPa
Elongation (ASTM D638)	6%	6%
Flexural Modulus (ASTM D790)	2.5 GPa	3.0 GPa
Flexural Strength (ASTM D790)	82.1 MPa	100.5 MPa
Compression Strength (ASTM D695)	77.9 MPa	86.3 MPa
Tg Ultimate (DSC, midpoint)	63°C	53°C
Hardness (Shore D)	70-80	70-80
PROCESSING DATA		
Mix Ratio (by volume)	2:1	2:1
Mix Ratio (by weight)	100:43	100:43
Viscosity (A/B/Mixed @ 25 °C)	1870/120/1020 mPas	1870/140/1060 mPas
Component Density (specific density @ 25°C)	1.14 (resin), 0.98 (hardener) gcm^{-3}	1.14 (resin), 0.98 (hardener) gcm^{-3}
Mixed Density (specific density @ 25°C)	1.09 gcm^{-3}	1.08 gcm^{-3}
Pot Life (@ 25°C)	18 min	43 min
Tack Free Time (@ 35°C)	3 hrs	8 hrs
Recommended Full Cure	7 days @ 25°C	7 days @ 25°C, Post cure recommended
ENVIRONMENT DATA		
VOC Content (ASTM D2369)	21.0 g/l	7.7 g/l
Biobased Carbon Content (ASTM D6866)	28%	21%

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SUPER SAP® FORMULATION

USDA CERTIFIED BIOBASED PRODUCT PRODUCT 30%

1% FOR THE PLANET

BRT

Optically Brightened Laminating Epoxy Resin

Optically brightened with enhanced UV resistance for ultra-white surfboard and low colour applications.

Popular Uses

Specifications

Resin / Hardener	Mix Ratio by Volume	Mix Ratio by Weight	Mixed Viscosity (mPas @ 25°C)	Pot Life (min @ 25°C)	Tack Free (hr @ 25°C)	Recommended Full Cure
EXTRA FAST			PROCESSING DATA			
BRT	2	100 45	1160	18	2	7 days @ 25°C
CLX	1					
Key Features	▸ Best-in-class Clarity / UV Stability / Yellowing Resistance / Low Viscosity					
Applications	▸ Professional Laminating / Hand Layup / Low Colour Applications					
FAST						
BRT	2	100	1100	21	4	7 days @ 25°C
CLF	1	44				
Key Features	▸ Excellent clarity / UV Stability / Low Yellowing / Low Blush in Cold or Humid Environments					
Applications	▸ General Laminating/Adhesive/Coating System, Hand Layup, Vacuum Moulding					
SLOW						
BRT	2	100	800	43	8	7 days @ 25°C Post cure recommended
CLS	1	43				
Key Features	▸ Excellent clarity / UV Stability / Low Yellowing / Long Working Time					
Applications	▸ General Laminating/Adhesive/Coating System, Hand Layup, Vacuum Moulding					

ENTROPY RESINS | SUPER SAP

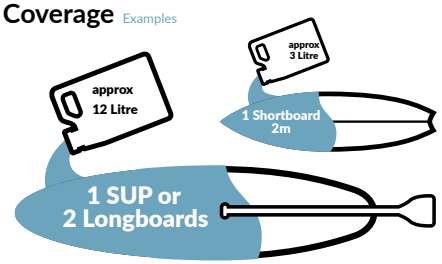
Pouring Quick Guide

CLX 100:45 / CLF 100:44 / CLS 100:43

Resin BRT GRAMS	Hardener CLX GRAMS	Hardener CLF GRAMS	Hardener CLS GRAMS
100	45	44	43
250	112.5	110	107.5
350	157.5	154	150.5
500	225	220	215
750	337.5	330	322.5
1000	450	440	430
2500	1125	1100	1075

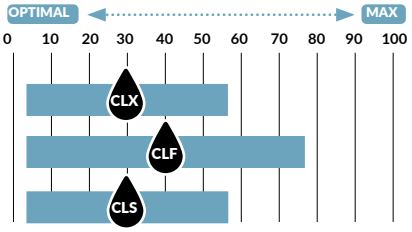
Coverage

Examples



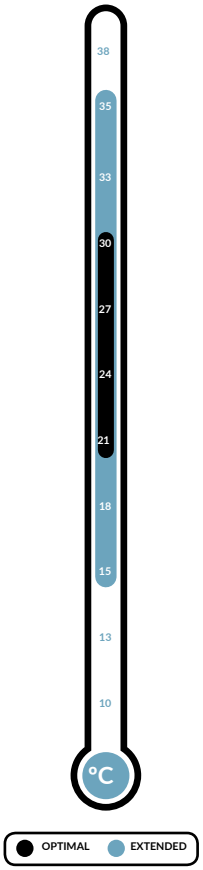
Working Humidity Range

% Humidity



Better in low humidity environments, especially when used outside of the optimal product temperature range.

Working Temp Range °C



Application Tips

For best results, measure two components by weight at the correct mix ratio.

Always mix product thoroughly for at least 2 minutes, scraping all surfaces of the container to ensure complete mixing.

Try to use product in a controlled temperature environment within the optimal specifications of the product. Avoid high humidity or cold ambient temperatures.

For optimal bonding performance, be sure surface is dry and free of dirt, debris and oils. Mechanical preparation of the surface from sanding is highly recommended.

Build sample coupons using proposed materials and processes to fully understand curing characteristics of the resins in your working environment and compatibility of the resins with other materials.

Avoid using BRT over dark coloured surfaces as optical brightener could affect appearance.

FOR MORE TIPS, VISIT US ON THE WEB AT

entropyresins.com/how-to-guide

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TECHNICAL DATA SHEET

ENTROPY RESINS®

Optically Brightened Laminating System

Optically brightened with enhanced UV resistance package for white surfboard and marine epoxy applications.

Product Overview

BRT is an optically brightened, clear, UV stabilised, general use laminating resin for white surfboard lamination and hot coating. Based on Entropy Resins CLR – Clear Epoxy Resin, BRT can be paired with all CLR Clear Hardeners. BRT is a USDA Certified BioPreferred® Product with 30% biobased content.

	CLX EXTRA FAST	CLF FAST	CLS SLOW
MECHANICAL DATA			
Tensile Modulus (ASTM D638)	3.1 GPa	3.0 GPa	3.2 GPa
Tensile Strength (ASTM D638)	65.5 MPa	65.5 MPa	67.6 MPa
Elongation (ASTM D638)	6%	5%	6%
Flexural Modulus (ASTM D790)	3.0 GPa	3.0 GPa	3.0 GPa
Flexural Strength (ASTM D790)	96.5 MPa	93.1 MPa	100.5 MPa
Compression Strength (ASTM D695)	78.1 MPa	78.1 MPa	86.3 MPa
Tg Ultimate (DSC, midpoint)	63°C	56°C	57°C
Hardness (Shore D)	70-80	70-80	70-80
PROCESSING DATA			
Mix Ratio (by volume)	2:1	2:1	2:1
Mix Ratio (by weight)	100:45	100:44	100:43
Viscosity (A/B/Mixed @ 25 °C)	2040/180/1160 mPas	2040/280/1100 mPas	2040/140/800 mPas
Component Density (specific density @ 25°C)	1.14 (resin), 0.98 (hardener) gcm^{-3}	1.14 (resin), 1.01 (hardener) gcm^{-3}	1.14 (resin), 0.98 (hardener) gcm^{-3}
Mixed Density (specific density @ 25°C)	1.09 gcm^{-3}	1.10 gcm^{-3}	1.09 gcm^{-3}
Pot Life (@ 25°C)	18 min	21 min	43 min
Tack Free Time (@ 35°C)	2 hrs	4 hrs	8 hrs
Recommended Full Cure	7 days @ 25°C	7 days @ 25°C	7 days @ 25°C, Post cure recommended
ENVIRONMENT DATA			
VOC Content (ASTM D2369)	19.5 g/l	31.5 g/l	0.0 g/l
Biobased Carbon Content (ASTM D6866)	20%	20%	21%

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USDA CERTIFIED BIOBASED PRODUCT PRODUCT 30%

1% FOR THE PLANET

CLR

Clear Laminating Epoxy Resin

UV stable, general use epoxy laminating resin for composites, coatings and adhesive applications.

Popular Uses

Specifications

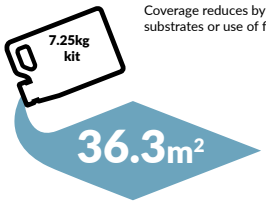
Resin / Hardener	Mix Ratio by Volume	Mix Ratio by Weight	Mixed Viscosity (mPas @ 25°C)	Pot Life (min @ 25°C)	Tack Free (hr @ 25°C)	Recommended Full Cure
EXTRA FAST			PROCESSING DATA			
CLR	2	100 45	990	18	2	7 days @ 25°C
CLX	1					
Key Features	▸ Best-in-class Clarity / UV Stability / Yellowing Resistance / Fastest Tack Free Cure					
Applications	▸ Professional Laminating / Coating System / Hand Layup					
FAST						
CLR	2	100	1040	21	4	7 days @ 25°C
CLF	1	45				
Key Features	▸ Excellent clarity / UV Stability / Low Yellowing					
Applications	▸ General Laminating/Adhesive/Coating System, Hand Layup, Vacuum Moulding					
SLOW						
CLR	2	100	700	43	8	7 days @ 25°C Post cure recommended
CLS	1	43				
Key Features	▸ Excellent clarity / UV Stability / Low Yellowing / Long Working Time					
Applications	▸ General Laminating/Adhesive/Coating System, Hand Layup, Vacuum Moulding					

ENTROPY RESINS | SUPER SAP

Pouring Quick Guide CLX 100:45 / CLF 100:45 / CLS 100:43

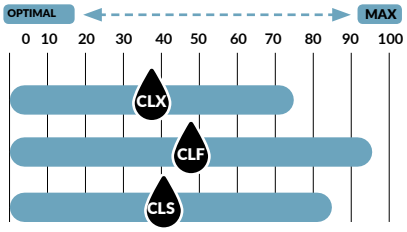
Resin CLR GRAMS	Hardener CLX GRAMS	Hardener CLF GRAMS	Hardener CLS GRAMS
100	45	45	43
250	112.5	112.5	107.5
350	157.5	157.5	150.5
500	225	225	215
750	337.5	337.5	322.5
1000	450	450	430
2500	1125	1125	1075

Coverage Square Metres



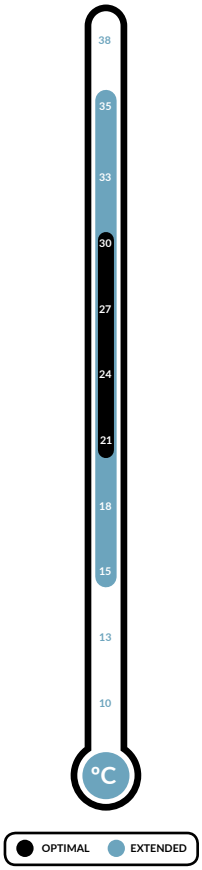
Coverage reduces by up to 50% over porous substrates or use of fibre reinforcements

Working Humidity Range % Humidity



Better in low humidity environments, especially when used outside of the optimal product temperature range.

Working Temp Range °C



Application Tips

For best results, measure two components by weight at the correct mix ratio.

Always mix product thoroughly for at least 2 minutes, scraping all surfaces in the container to ensure complete mixing.

Try to use product in a controlled temperature environment within the optimal specifications of the product. Avoid high humidity or cold ambient temperatures.

For optimal bonding performance, be sure surface is dry and free of dirt, debris and oils. Mechanical preparation of the surface from sanding is highly recommended.

Build sample coupons using proposed materials and processes to fully understand curing characteristics of the epoxy in your working environment and compatibility of the epoxy with other materials.

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TECHNICAL DATA SHEET

ENTROPY RESINS®

Clear Laminating System

Clear, UV Stable Epoxy Resin for high colourwork laminations, coatings, and marine epoxy applications.

Product Overview

CLR is a clear, UV stabilised, general use, laminating resin for composites, coating and adhesive applications. It has an ideal viscosity for a wide range of applications that use hand layup techniques with fast room temperature cures. CLR is a USDA Certified BioPreferred® Product with 29% biobased content.

	CLX EXTRA FAST	CLF FAST	CLS SLOW
MECHANICAL DATA			
Tensile Modulus (ASTM D638)	3.1 GPa	3.0 GPa	3.2 GPa
Tensile Strength (ASTM D638)	65.5 MPa	65.5 MPa	67.6 MPa
Elongation (ASTM D638)	6%	5%	6%
Flexural Modulus (ASTM D790)	3.0 GPa	3.0 GPa	2.9 GPa
Flexural Strength (ASTM D790)	96.5 MPa	93.1 MPa	100.5 MPa
Compression Strength (ASTM D695)	78.1 MPa	78.1 MPa	86.3 MPa
Tg Ultimate (DSC, midpoint)	64°C	66°C	61°C
Hardness (Shore D)	70-80	70-80	70-80
PROCESSING DATA			
Mix Ratio (by volume)	2:1	2:1	2:1
Mix Ratio (by weight)	100:45	100:45	100:43
Viscosity (A/B/Mixed @ 25 °C)	2300/180/990 mPas	2300/280/1040 mPas	2300/140/700 mPas
Component Density (specific density @ 25°C)	1.14 (resin), 0.98 (hardener) gcm^{-3}	1.14 (resin), 1.01 (hardener) gcm^{-3}	1.14 (resin), 0.98 (hardener) gcm^{-3}
Mixed Density (specific density @ 25°C)	1.08 gcm^{-3}	1.09 gcm^{-3}	1.08 gcm^{-3}
Pot Life (@ 25°C)	18 min	21 min	43 min
Tack Free Time (@ 35°C)	2 hrs	4 hrs	8 hrs
Recommended Full Cure	7 days @ 25°C	7 days @ 25°C	7 days @ 25°C, Post cure recommended
ENVIRONMENT DATA			
VOC Content (ASTM D2369)	19.5 g/l	31.5 g/l	0.23 g/l
Biobased Carbon Content (ASTM D6866)	20%	20%	21%

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SUPER SAP® FORMULATION

USDA CERTIFIED BIOBASED PRODUCT PRODUCT 29%

1% FOR THE PLANET

CCR

Clear Casting Epoxy Resin

HARDENERS

EPOXY

Water clear, low viscosity, UV stable, designed for casting, embedding and high build coating applications.

Popular Uses

JEWELLERY | HIGH BUILD COATINGS | CASTINGS

Specifications

Resin / Hardener	PROCESSING DATA: Mix Ratio by Volume	Mix Ratio by Weight	Mixed viscosity (mPas @ 25°C)	Pot Life (min @ 25°C)	Tack Free (hr @ 25°C)	Recommended Full Cure
SLOW						
CCR	2	100	270	360	72	7 days @ 25°C Post cure recommended
CCS	1	42				

Key Features ▶ High clarity and slow cure speeds allow for high build or bulk castings

CCR	2	100	370	90	24	7 days @ 25°C Post cure recommended
CCF	1	43				

Key Features ▶ High clarity for use on coloured substrates or embedment

Pouring Quick Guide CCF 100:43 / CCS 100:42

Resin GRAMS	Hardener CCF GRAMS	Mix Volume CCR/CCF ml	Hardener CCS GRAMS	Mix Volume CCR/CCS ml
25	10.75	33.10	10.5	33.18
50	21.5	66.20	21	66.36
75	32.25	99.30	31.5	99.53
100	43	132.41	42	132.71
150	64.5	198.68	63	199.07
300	129	397.22	126	398.13
350	150.5	463.43	147	464.49
400	172	529.63	168	530.84
450	193.5	595.83	189	597.20

Suggested maximum total mix 1000g

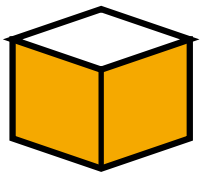
Volume Calculations

Maximum castable amounts at 25°C ambient temperatures.

Fast 250g/231ml

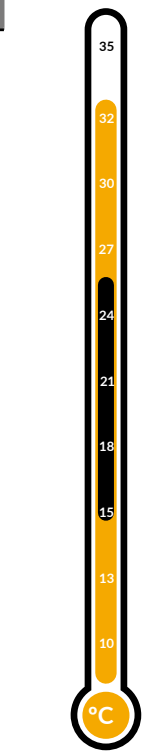
approx 62mm cube

Slow 1000g/935ml



approx 100mm cube

Working Temp Range °C



OPTIMAL | EXTENDED

Smaller amounts recommended at higher temperatures to avoid exotherm. Lower temperatures will take longer to cure.

Application Tips

For best results, measure two components by weight at the correct mix ratio.

Always mix product thoroughly for at least 2 minutes, scraping all surfaces of the container to ensure complete mixing.

Use product in a ventilated and controlled temperature environment within the optimal specifications of the product. Avoid high humidity or cold ambient temperatures.

For optimal bonding performance, be sure surface is dry and free of dirt, debris and/or oils. Sanding preparation of the surface is highly recommended.

Build sample coupons using proposed materials and processes to fully understand curing characteristics of the epoxy in your working environment and compatibility with other materials.

FOR MORE TIPS, VISIT US ON THE WEB AT

entropyresins.com/how-to-guide

EN-06/2020

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ENTROPY RESINS | SUPER SAP

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TDS

TECHNICAL DATA SHEET

ENTROPY RESINS®

Clear Casting System

Clear, Low Viscosity Liquid Epoxy Resin for Casting, Potting, and Embedding.

Product Overview

CCR is a water-clear, UV stabilised, low-viscosity epoxy system designed specifically for casting, potting, and embedding applications. Low colour and low viscosity allow for bubble-free, crystal clear casting ideal for art and hobby applications.
The system features two hardener speeds: slow (CCS) for high build casting resin applications and fast (CCF) for quick, small project fast casting resin applications such as resin jewellery and more. CCR is a USDA Certified BioPreferred® Product with 30% biobased content.

	CCF FAST	CCS SLOW
MECHANICAL DATA		
Tensile Modulus (ASTM D638)	3.1 GPa	3.0 GPa
Tensile Strength (ASTM D638)	56.1 MPa	54.5 MPa
Elongation (ASTM D638)	6%	6.5%
Flexural Modulus (ASTM D790)	2.7 GPa	2.8 GPa
Flexural Strength (ASTM D790)	81.7 MPa	76.5 MPa
Compression Strength (ASTM D695)	85.4 MPa	74.9 MPa
Tg Ultimate (DSC, midpoint)	51°C	52°C
Hardness (Shore D)	70-80	70-80
PROCESSING DATA		
Mix Ratio (by volume)	2:1	2:1
Mix Ratio (by weight)	100:43	100:42
Viscosity (A/B/Mixed @ 25 °C)	2160/30/370 mPas	2160/15/270 mPas
Component Density (specific density @ 25°C)	1.12 (resin), 0.97 (hardener) gcm^{-3}	1.12 (resin), 0.95 (hardener) gcm^{-3}
Mixed Density (specific density @ 25°C)	1.08 gcm^{-3}	1.07 gcm^{-3}
Pot Life (@ 25°C)	90 min	360 min
Tack Free Time (@ 35°C)	24 hrs	72 hrs
Recommended Full Cure	7 days @ 25°C, Post cure recommended	7 days @ 25°C, Post cure recommended
ENVIRONMENT DATA		
VOC Content (ASTM D2369)	9.2 g/l	8.0 g/l
Biobased Carbon Content (ASTM D6866)	20%	20%

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305

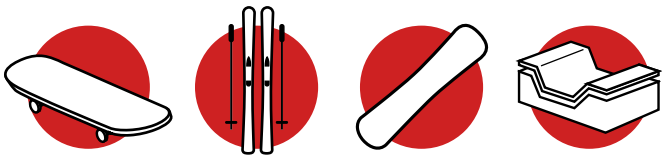
Compression Moulding Epoxy Resin

HARDENERS

EPOXY

Fast heat activated cures for high throughput compression moulding processes.

Popular Uses



SKATEBOARDS | SKIS | SNOWBOARDS | PRESS MOULDING COMPOSITES

Specifications

Resin / Hardener	Mix Ratio by Volume	Mix Ratio by Weight	Mixed Viscosity (mPas @ 25°C)	Pot Life (min @ 25°C)	Recommended Full Cure
SLOW			PROCESSING DATA		
305	2	100	1546	50	20 minutes @ 82°C
CPS	1	38			

Key Features ▶ Superior adhesion, lowest viscosity for easy fibre wet out. **USDA BioPreferred®**.

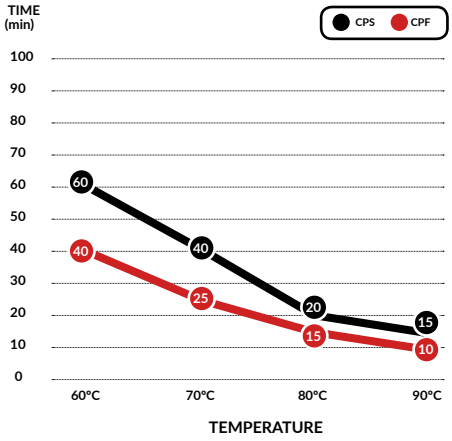
305	2	100	1994	20	15 minutes @ 82°C
CPF	1	40			

Key Features ▶ Superior adhesion, low viscosity for easy fibre wet out and fast cures for high throughput. **USDA BioPreferred®**.

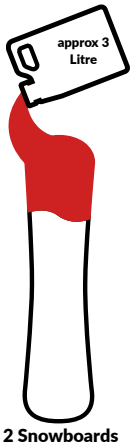
Pouring Quick Guide CPS 100:38 / CPF 100:40

Resin GRAMS	Hardener GRAMS (CPS)	Resin GRAMS	Hardener GRAMS (CPF)
25	9.5	25	10
150	57	150	60
300	114	300	120
550	209	550	220
625	237.5	625	250
680	258.4	680	272
740	281.2	740	296
800	304	800	320
850	323	850	340

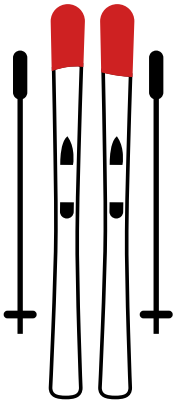
Cure Time vs. Temperature



Coverage



2 Snowboards or 2 Pairs of Skis



Application Tips

For best results, measure two components by weight at the correct mix ratio.

Always mix product thoroughly for at least 2 minutes, scraping all surfaces of the container to ensure complete mixing.

Use product in a controlled temperature environment within the optimal specifications of the product. Avoid high humidity or cold ambient temperatures.

For optimal bonding performance, be sure surface is dry and free of dirt, debris and/or oils. Sanding preparation of the surface is highly recommended.

Build sample coupons using proposed materials and processes to fully understand curing characteristics of the epoxy in your working environment and compatibility with other materials.

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TECHNICAL DATA SHEET

ENTROPY RESINS®

305 Compression Moulding System

High Bio-Content, General Purpose Liquid Epoxy Resin.

Product Overview

305 is a compression moulding resin for fast cycle times in heat-assisted moulding processes of fibre-reinforced composites. The 305 System delivers a high bio-content, excellent fibre wetting qualities and thixotropic characteristics to limit sag in high-temperature cure applications. A high modulus combined with excellent elongation properties enable durable yet lightweight composite parts. 305 is a USDA Certified BioPreferred® Product with 28% biobased content.

	CPF FAST	CPS SLOW
MECHANICAL DATA		
Tensile Modulus (ASTM D638)	3.4 GPa	3.2 GPa
Tensile Strength (ASTM D638)	73.1 MPa	68.9 MPa
Elongation (ASTM D638)	6.2%	7%
Flexural Modulus (ASTM D790)	3.0 GPa	2.9 GPa
Flexural Strength (ASTM D790)	109.4 MPa	102.0 MPa
Compression Strength (ASTM D695)	84.1 MPa	81.4 MPa
Tg Ultimate (DSC, midpoint)	66°C	68°C
Hardness (Shore D)	70-80	70-80
PROCESSING DATA		
Mix Ratio (by volume)	2:1	2:1
Mix Ratio (by weight)	100:40	100:38
Viscosity (A/B/Mixed @ 25 °C)	3360/1656/1994 mPas	3360/528/1546 mPas
Component Density (specific density @ 25°C)	1.13 (resin), 0.99 (hardener) gcm^{-3}	1.13 (resin), 0.96 (hardener) gcm^{-3}
Mixed Density (specific density @ 25°C)	1.09 gcm^{-3}	1.08 gcm^{-3}
Pot Life (@ 25°C)	20 min	50 min
Tack Free Time (@ 35°C)	N/A	N/A
Recommended Full Cure	15 min @ 82°C	20 min @ 82°C
ENVIRONMENT DATA		
VOC Content (ASTM D2369)	1.2 g/l	0.05 g/l
Biobased Carbon Content (ASTM D6866)	29%	32%

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TECHNICAL DATA SHEET

ENTROPY RESINS®

Accessories

Entropy Resins® Colour Tints.

Product Overview

Vivid Colour Tints (6 Pack) This includes 25g bottles of Berry Red, Lemon Zest, Lily Pad, Eclipse, Snowy Peaks & Celestial Blue.

Soft Colour Tints (6 Pack) This includes 25g bottles of Turquoise, Snowy Peaks, Lavender Hills, Flamingo Pink, Caribbean Blue & Fresh Apricot.

Entropy Resins Colour Tints are used to colour mixtures of Entropy Resins Epoxy. The tints can be blended to create the exact shade you need. Colour will degrade due to sunlight—it is not intended as a final exterior finish.

- Shake well before use.
- Add a few drops at a time to mixed resin & hardener and stir thoroughly. A tiny amount is required (Approx. 1 part colour tint to 1000 parts mixed epoxy).
- If required add more drops until the desired shade is achieved.

ER-TINT-V-6
VIVID COLOUR TINTS

Swatch	
	Berry Red
	Lemon Zest
	Lily Pad
	Eclipse
	Snowy Peaks
	Celestial Blue

ER-TINT-S-6
SOFT COLOUR TINTS

	Swatch
Turquoise	
Snowy Peaks	
Lavender Hills	
Flamingo Pink	
Caribbean Blue	
Fresh Apricot	

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ENTROPY RESINS®

Accessories

Entropy Resins® Mixing Pots

Product Overview

Strong, clear, reusable 800ml mixing pots graduated in 50ml divisions. When cured, solid epoxy easily “pops out”. Available individually (EA-806-1) or packs of 100 (EA-806-100).

EA-806
MIXING POT

Pictures

Entropy Resins® Mixing Sticks

Product Overview

300mm x 27mm, square edged wooden mixing sticks will ensure thorough mixing of resin and hardener. Strong, durable sticks that are ideal for scraping the sides and bottom of Entropy Resins mixing pots. Available in packs of 5 (EA-814-5) or 100 (EA-814-100).

EA-814
MIXING STICKS

Pictures

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