

KOREKOTE

ADVANCED EPOXY SYSTEMS

TOP PERFORMING 2:1 EPOXY RESIN SYSTEMS

**FLEXURAL
MODULUS**
**401,532
PSI**

**FULLY CURED
48-72 HOURS**
(AT A TEMPERATURE OF 70°F)

**100%
NON-POROUS
POLYMER**

ULTRA LOW VOCs
AND NO FOUL ODORS
ANTIBACTERIAL / ANTIMICROBIAL

USER-FRIENDLY VISCOSITY
**HIGH
FLASH
POINT 357°**

**EASILY CLEANS UP WITH
DENATURED ALCOHOL**

**NATURALLY CURES WITH
HIGH OPTICAL CLARITY—NO AIR
BUBBLES OR HAZING.**

UV RESISTANCE BUILT IN

LOW ENVIRONMENTAL IMPACT



SAFERESIN™
**A REVOLUTION IN
EPOXY TECHNOLOGY.**

**WELCOME TO THE NEXT
LEVEL OF EPOXY INNOVATION.**

When we set out to advance epoxy resin technology, we knew we had to start at the foundation. So we looked at the chemistry behind the material and discovered ways in which it could be improved. The result—SafeResin™. Safer, Stronger, Faster, and Easier. The resin technology that is anything but ordinary.



The KoreKote epoxy resin system, built on SafeResin™ technology, is a 100% pure polymer thermal set resin built on a proprietary formulation utilizing both natural and traditional ingredients with a combined chemistry that neutralizes the hazardous elements to human health and the environment.

Also, due to its enhanced curing process, the product is 100% non-porous and forms strands of cross-linked chains of molecules that interlock to produce unprecedented strength.

Because of its proprietary SafeResin™ technology, KoreKote also holds on-site testing certification from OSHA showing a 0 PEL air quality test result for harmful VOC emissions in its production plant.

BENEFITS — SAFERESIN™ TECHNOLOGY

- High optical clarity
- Low / no VOCs or foul odors
- Self-leveling
- Outstanding strength & mechanical performance
- Anti-microbial
- Scratch resistant
- UV resistant
- High flash point
- 100% non-porous polymer
- User friendly cure profile
- Easy clean-up

RECOMMENDED SUBSTRATES

KoreKote epoxy will bond the following materials:

- Cement, masonry, stone, marble
- Wood, decking, plywood, press board, slat board
- Metal, steel, stainless steel
- Certain Plastics
- Ceramic
- Fiberglass
- Foam

KOREKOTE — EPOXY RESIN SYSTEMS

2:1 Systems	Laminating	Hand Lay-up	Adhesive/Bonding	Vacuum Molding	PrePreg	Coating	Structural Build	Pulltrusion
KR24—Resin H225—Fast Hardener	X	X	X	X	X	X	X	
KR24—Resin H215—X-Fast Hardener	X	X	X			X	X	
KR32—Resin H225—Fast Hardener						X		
KR38—Resin H238—Hardener								X

BULK RESIN PACKAGING

	Gallon	Pail	Drum	IBC	Tanker
KoreKote Epoxy Resin	9.2 lbs	46 lbs	500 lbs	2500 lbs	47000 lbs
Hardener	8.66 lbs	43.3 lbs	440 lbs	2100 lbs	46200 lbs

KOREKOTE—KR24 RESIN	H225—FAST HARDENER	H215—X-FAST HARDENER	ASTM TEST
Key Features	Glass like clarity, UV stable, Non-Bubbling, Anti-Microbial, Resists Yellowing	Clear, UV stable, Non-Bubbling, Anti-Microbial, Resists Yellowing	
Applications	Laminating, Hand Lay up, Adhesive, Bonding, Prepreg, Vacuum Molding, Coating	Professional Laminating, Hand Lay up, Adhesive, Bonding, Coating	
Potential Uses	Marine, Surface clear coats Tooling protection, Composite Manufacturing	Marine, Surface clear coats, Composite Manufacturing	
PERFORMANCE DATA			
Tensile Modulus (psi)	401,365*	TBD	ASTM D638
Tensile Strength	6170*	TBD	ASTM D638
Elongation	2.7*	TBD	ASTM D638
Flexural Modulus	401,532*	TBD	ASTM D638
Flexural Strength	12,575*	TBD	ASTM D638
Compression Strength	9,641*	TBD	ASTM D695
Ultimate Tg by DSC (°F)	357*	TBD	ISO 11357-2
Heat Deflection Temp (°F)	136*	TBD	ASTM D648
Hardness (shore D)	83-89*	TBD	ASTM D2240
PRODUCT DATA			
Mix Ratio (by volume)	2:1	2:1	
Mix Ratio (by weight)	100:48	100:47	
Viscosity (A/B/Mixed, cPs, @ 70° F)	632/750/595	632/770/605	
Pot Life (mins, @ 70° F)	25	15	
Gel Time (mins, @ 70° F)	45	20	
Crystallized (Dry to the touch—hrs, @ 70° F)	4	2	
Full Cure	3 days @ 70° F	3 days @ 70° F	

Note* - All tests were completed using KoreKote pure resin with no additives
 - All tests were completed by a third party independent laboratory

APPLICATION TEMPERATURE

Apply at 5° F (3° C) above dew point. The following chart provides the preferred conditions for temperature and humidity. The conditions provided in the chart along with good circulation are important to maintain throughout the cure cycle.

	Epoxy	Substrate	Ambient	Humidity
Preferred	95 – 105° F	50 – 120° F	70 – 100° F	0 – 90%
Minimum	90° F	55° F	55° F	0%

LIQUID PROPERTIES

Form	Semi-thick liquid
Low/no VOCs	Yes
Viscosity	632/750/595
Pot life	20 minutes
Gel time	40 minutes
Full cure time	48–72 hours (depending on temperature and application)
Shelf life	24 months
Cure method	Chemical reaction
Application temperature	50° – 90°F

CURED PROPERTIES

Finish	Crystal Clear
Permeable	No
Can be painted/stained	No
Fills gaps	Yes
Removable	No
Flexible	Depends upon desired system
Antibacterial	Yes
Flash Point	> 357°F (180.6°C)

DISCLAIMER

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

SURFACE PREP INSTRUCTIONS

All surfaces must be cleaned and dry, free of dust, dirt, oil or other foreign matter.

MIXING INSTRUCTIONS

Number of components	2 — A & B
Mix ratio	2:1
Application methods	roller, brush, machine sprayer, layup, laminating, vacuum molding

Mix **2:1 ratio** by volume of **Part A (resin)** and **Part B (hardener)** together. Mix thoroughly until uniform color and consistency throughout. Mechanical mixing (drill with mixing paddle) is critical.

Mechanically pre-mix both Part A and Part B components individually for approx. 1 minute. Then mix combined compound with mechanical mixer at 400-600 rpm for 3 to 4 minutes. Mechanical mixing blades are recommended.

APPLICATION

When material is spread out in a thinner layer, the worklife is extended to approximately 40 minutes (do not apply in temperatures below 50°F). For detailed handling and safety instructions, please refer to the product **SDS Documents**.
Downloaded SDS at: www.korekote.com/download

APPLICATION TEMPERATURE

The curing profile of KoreKote® Epoxy with SafeResin™ technology will vary depending upon the ambient conditions of your project, including temperature and humidity. To achieve the best cure result follow the recommended cure cycle time and conditions on the TDS that came with your order. Always run a test before full application is initiated. Also, substrate temperatures can have a significant impact on curing profile – make sure your substrate is within recommend temperature ranges before applying a KoreKote® Epoxy Resin System.

POT LIFE

Pot life of mixed epoxy system is approximately 20 minutes at 70°F if material is left as a unit in mixing container. Higher temperatures reduce pot life and accelerate curing. **CAUTION:** Mixing large quantities (more than a 3 gallon batch size) generates significant heat and shortens pot life.

Do not leave large quantities of mixed material in its container beyond its pot life, as significant heat will be generated and can melt container or cause a safety hazard.

CLEANUP

Use denatured alcohol (not necessary to use harmful/toxic solvents) to cleanup uncured material and tools. For small amounts of excess product, mix Part A and Part B according mixing instructions. Allow material to solidify prior to disposal. **DO NOT** use solvents to clean epoxy from skin. Consult MSDS and TDS for complete handling and safety information.

STORAGE

The minimum shelf life of 24 months can be achieved provided the material remains stored in closed containers, in a dry environment, out of direct sunlight and at stable temperatures between 50° to 100°F. If product is exposed to temperatures below 50° F crystallization of the material may occur. Crystallization can be reversed with no adverse affects to the material if it is placed in elevated temperatures of 120° to 150° F for a short period of time (15 sec intervals). Ensure product has returned to its original pre crystallization state prior to application.

APPLICATION METHODS

KreteKote epoxy with SafeResin™ technology can be applied using several different methods depending on the specific application and project requirements. If an automated sprayer is used, changes in pressure and tip sizes may be necessary to achieve desired spray characteristics. Always purge spray equipment before use with Denatured Alcohol.

RECOMMEND CLEANING AGENT

Denatured Alcohol

CHOPPER/SPRAY GUN

LAY-UP

LAMINATION

PREPREG

VACCUM MOLDING

PULTRUSION

BRUSH

Nylon/Polyester or Natural Bristles

Cleaning Agent: Denatured Alcohol

ROLLER

Specs: 3/8" woven nap with solvent resistant core (designed specifically for epoxy application)

Cleaning Agent: Denatured Alcohol

KOREKOTE®

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+ SUGGESTED FIRST AID

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call a POISON CONTROL CENTER if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice. Immediately call a doctor.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a doctor.

For detailed handling and safety instructions, please refer to the product SDS Documents. Downloaded SDS at: www.korekote.com/download

!!! WARNING

May cause an allergic skin reaction. Causes skin and serious eye irritation. Specific treatment (see FIRST AID section on this label). Avoid breathing vapors. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves and eye protection. Wash hands and exposed skin thoroughly after handling. Dispose of container in accordance with local regulations. **For detailed handling and safety instructions, please refer to the product SDS Documents. Downloaded SDS at: www.korekote.com/download**

!! KEEP OUT OF REACH OF CHILDREN !!

CONTAINS: Reaction products of Epichlorohydrin and Bisphenol, Alkyl Glycidyl Ether.

DISCLAIMER

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

WARRANTY

KoreKote, Inc. warrants its products to be free of manufacturing defects in accord with applicable KoreKote quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by KoreKote.

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