

Chinking and Specialty Sealants

Energy Seal™

Specialty Sealant for Log Homes

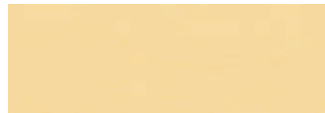
Energy Seal is specially formulated for sealing narrow gaps in log home joinery such as butt joints, window trim, door trim and corners. It is lightly textured to match wood surfaces for applications where you would like the sealant to be invisible. Energy Seal accepts stain colors and blends into the surface of wood joinery.

- Highly elastic
- Use for interior and exterior sealing
- For use in gaps up to 1 inch wide
- Maintenance free
- Very low VOC formula
- Soap and water cleanup
- Compatible with all Perma-Chink Systems wood care products



Energy Seal Coverage Rates

To be applied 5/16" - 3/8" thickness			
Width of gap	Feet per 11-oz. tube	Feet per 30-oz. tube	Feet per Pail
1/2"	16'	48'	975'
3/4"	11'	32'	650'
1"	8'	24'	490'



Natural Pine #520



Sierra Brown #505



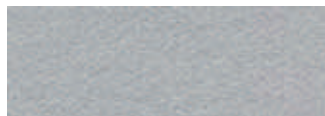
Desert Tan #519



Cedar #530



Classic Brown #523



Slate Gray #542

Color representations are as close as possible to actual colors. Application techniques and other factors will affect the actual color when finished. We supply samples for evaluation on your specific wood.

Surface Preparation:
Must be clean and dry and free of oils and wax. Use Backer Rod wherever possible.

Application Rates:
See coverage rate table.

Application Temperature:
40° F to 90° F

Application Methods:
Chink Pump.
Bulk loading gun.
Caulk gun.
Application bags.

of Coats:
Apply at 3/8" thickness. Do not apply in direct, hot sunlight.

Drying Time:
Skins over in 20 minutes. Complete curing may take 3 to 8 weeks depending on temperatures and humidity.

Clean up:
Soap and water.

Packaging:
11 oz. tubes.
30 oz. tubes.
5 gallon pail.

Storage/Shelf Life:
Freeze/thaw stable.
1 year.



ENERGYSEAL™

Eliminates Heat Loss and Destructive Water Infiltration



ENERGYSEAL has an attractive natural appearance and is easy to apply. ENERGYSEAL is an excellent choice for sealing all of the window and door frames, seams, butt joints, and corners of your log home. Its textured finish readily accepts a stain for maximum hiding power.

Seals Your Log Home

ENERGYSEAL is an acrylic polymer sealant formulated to provide a long-lasting and resilient barrier for any log home. Since logs constantly twist, turn, swell, expand and shrink during the life of a log home, destructive gaps do appear. These gaps promote the retention of moisture as well as seepage of air and water. ENERGYSEAL will virtually eliminate these destructive gaps by adhering directly to the logs while eliminating any air space. This product is resistant to most chemicals, salt spray, mold and mildew, and has low thermal conductivity. When applied on your log home, it stops air infiltration which increases the energy efficiency of your home.

PERMA-CHINK®
SYSTEMS, INC.

www.permachink.com

Made in USA



Net Contents: 44 lbs. / 22 Kilos

6/06

Directions For Use

STEP #1: INSPECTION

Check for deterioration and decay. Remove and replace or repair deteriorated wood. Unsound wood should be repaired prior to applying ENERGYSEAL. Contact any Perma-Chink Systems office for information about wood repairs.

STEP #2: SURFACE PREPARATION

All surfaces should be clean and free of contaminants including dirt, dust, mold, mildew, oil and wax. Use appropriate materials to clean and prepare surfaces. Do not apply ENERGYSEAL over old caulk. If a wood preservative has been previously applied, make sure it is completely dry before applying ENERGYSEAL. If the surface is tacky or there are visible deposits on the wood, wipe the surface with a wet rag and allow to dry. If an oil-based stain has been applied, allow it to dry at least two weeks before applying ENERGYSEAL. Request a copy of "Log Home Sealant Application Guide" from any Perma-Chink Systems office for information about surface preparation and sealant application.

STEP #3: BACKING MATERIALS

Depending on the log structure, Grip Strip (trapezoid) or Backer Rod (round) should be placed into the gap before the ENERGYSEAL is applied. This provides a more effective two-way (top and bottom) adhesion. When sealing small seams between logs, the Backer Rod may be held in place by running a small bead of ENERGYSEAL along the seam and sticking the Backer Rod to it. After about 30 minutes ENERGYSEAL may then be applied over the Backer Rod without displacing it.

STEP #4: APPLICATION

ENERGYSEAL is compatible with most stains. For maximum adhesion and least visibility use ENERGYSEAL on bare wood prior to staining. If ENERGYSEAL is to be used over newly applied stains or topcoats, apply the product in an obscure area, wait 24 hours and test for adhesion. Do not apply ENERGYSEAL in direct sunlight or when the temperature is less than 40° F. ENERGYSEAL may be applied with a bulk loading caulk gun or applicator bag. Hold the applicator tip firmly against the back surface and apply. Apply enough sealant to maintain a wet thickness of 3/8" across the entire joint after tooling. Only apply as much sealant as you can tool in about 15 minutes. Once the joint is filled, spray with a light mist of water and tool smooth with a trowel or spatula. If the width of the trowel is close to the width of the joint, the smoothing process will be easier. Make sure there is good contact between the ENERGYSEAL and the exposed edges of the top and bottom logs. If you are a first time applicator, start work on a less visible area until you become familiar with the process.

CAUTION: DO NOT TAKE INTERNALLY.

STEP #5: DRYING AND CURING TIME

Protect freshly applied ENERGYSEAL from direct rainfall for a minimum of 24 hours. When draping a wall with plastic film, allow some airspace between the wall and the plastic to facilitate drying. Drying time and curing time are two entirely different terms. In warm or hot weather, ENERGYSEAL will begin to skin over in as little as ten minutes while a complete cure may take three to four weeks. Cooler weather will slow both the drying time and curing process.

STEP #6: CLEANUP

Clean area and equipment immediately with warm, soapy water before the ENERGYSEAL dries. For removing Perma-Chink that has dried, soften with alcohol and then clean with warm water. Please do not pollute our environment. Dispose of containers and unused material in accordance with local, state, and federal regulations.

STEP #7: MAINTENANCE

Periodic cleaning with an appropriate cleaner such as Log Wash™ will clean off dust and dirt and accentuate the beauty of your home. We recommend that log walls be washed down at least twice a year. Small rips and tears may be repaired using a bead of ENERGYSEAL and a damp short bristled brush to blend it in with the surrounding area.

STEP #8: STORAGE

Store ENERGYSEAL out of direct sunlight and **protect from freezing.** Although ENERGYSEAL is freeze-thaw stable, if the product is accidentally frozen, allow to thaw, mix well and check for suitability of use before applying.

Request a copy of our "Log Home Sealant Application Guide" from any Perma-Chink Systems office for additional information about applying and maintaining ENERGYSEAL.

LIMITED WARRANTY

PERMA-CHINK SYSTEMS, Inc. warrants that ENERGYSEAL, when applied according to manufacturer's specifications and instructions, is free from defects and will perform as described in the manufacturer's publications. PERMA-CHINK SYSTEMS, Inc. entire responsibility under this limited warranty will be to replace materials that have proven to be defective, provided that not more than five years have elapsed since the original purchase.

Material Safety Data Sheet



IDENTITY (As Used on Label and List)
Energy Seal

Section I

Manufacturer's Name Perma-Chink Systems, Inc.	Emergency Telephone Number: CHEMTREC 1-800-424-9300
Address (Number, Street, City, State, and ZIP code) 1605 Prosser Road	Telephone Number for Information: 865-524-7343
Knoxville, TN 37914	Date of Preparation 8/17/09
Preparer's Name Sean Gahan	Signature of Preparer (optional)

Section II – Hazardous Ingredients/Identity Information

Hazardous Component (Specific Chemical Identity, Common Name(s):	CAS #	OSHA / PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Aliphatic Hydrocarbon	64742-88-7	300 ppm			
Isopropyl Alcohol	67-63-0	400 ppm	400 ppm		

Section III – Physical/Chemical Characteristics

Boiling Point: 212 °F	Specific Gravity (H ₂ O = 1) 1.2 – 1.3
Vapor Pressure (mm Hg.) N/A	Melting Point N/A
Vapor Density (Air = 1) > 1	% Volatile (Volume) 25-35
Solubility in Water Mixes with water	Evaporation Rate (Water = 1) < 1
Appearance and Odor Paste in various colors. Slight latex odor.	VOC: 135 g/L

Section IV – Fire and Explosion Hazard Data

Flash Point (Method Used) N/A	Flammable Limitations	LEL	UEL
Extinguishing Media For dried solids use water, CO ₂ , foam or dry chemical.			
Special Fire Fighting Procedures Water may be used to cool container that are exposed to heat.			
Unusual Fire and Explosion Hazards Pressure may build if containers are exposed to heat.			

Section V – Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	✓	
Incompatibility (Materials to Avoid)			None Known
Hazardous Decomposition or Byproducts			None Known.
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	✓	None Known

Section VI – Health Hazard Data

Routes of Entry Inhalation? No Skin? Yes Ingestion? Yes Eye Contact? Yes

Health Hazards (Acute and Chronic)

May cause irritation to eyes, skin, nasal passages and throat.

Carcinogenicity? NO NTP? NO IARC Monographs? NO OSHA Regulated? NO

No long-term adverse effects are known.

Signs and Symptoms of Exposure: Persistent skin redness and irritation.

Medical Conditions: None known

Emergency and First Aid Procedures:

Eye contact: Flush with large quantities of clean water for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion: Do not induce vomiting. Dilute by drinking large quantities of water or milk. Consult a physician.

Skin contact: Wash affected area with warm water and soap. Seek medical attention if irritation persists.

Inhalation: Get fresh air. Seek medical attention if irritation persists.

Section VII – Precautions for Safe Handling and Use

Steps to be taken in Case Material is Released or Spilled

Contain spill with inert material. Do not allow material or washings to enter waterways.

Waste Disposal Method

Dispose of material in accordance with all applicable Federal, State, and Local regulations.

Precautions to be taken in Handling and Storing

Read and Observe all product label instructions. Protect product from freezing. KEEP OUT OF REACH OF CHILDREN.

Other Precautions

Section VIII – Control Measures

Respiratory Protection (Specify Type)

Wear NIOSH approved organic vapor respirator if TLV exceeded.

Ventilation Local Exhaust

Provide local exhaust to keep TLV (Section 2) below acceptable limits .

Mechanical (general)

Special

Other

Protective Gloves

Gloves recommended.

Eye Protection

Goggles or safety glasses recommended.

Other Protective Clothing or Equipment

None required with normal use.

Work/Hygenic Practices: Wash hands after using or before handling food or drink.

The information contained herein is, to the best of Perma-Chink Systems, Inc. knowledge, accurate as of the data indicated. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume responsibility for the results of its use. This information is furnished on the condition that the person receiving it shall make his own determination as to the suitability of the material for his particular purpose and on the condition that he assumes the risk of his use thereof.