



Custom Linings® Poly Epoxy 21 100% Solids Polyamine Epoxy Flooring Aggregate Bonding

DESCRIPTION

Custom Linings® Polyamine Epoxy 21 is a two component, 100% solids, liquid applied, Polyamine Epoxy material with unique penetrating characteristics making for an ideal primer and bonding agent for granular quartz/granite flooring systems.

FEATURES

- ◆Seamless application
- ◆Solvent Free
- ◆Excellent Adhesion
- ◆100% Solids
- ◆Low Viscosity
- ◆Low Odor

TYPICAL USES

- ◆Concrete Primer
- ◆Plywood Primer
- ◆Creating Thick Flooring
- ◆Slurry/Trowable Filler

COLOR

Part A: Blue Part B: Yellow

PACKAGING

3 gallon kit or 15 gallon kit

MIXING

The volume mixing ratio is 2 parts A/Blue to 1 part B/Yellow.

Product 21 parts A and B should be mixed separately prior to mixing together. The combined components should then be mixed with a drill and attachment for 2-4 minutes to ensure uniform and homogeneous blended material.

APPLICATION

Product 21 should be applied at a rate of 1 gallon of mixed material per 50-100 square feet when used as a flooring aggregate binder/flooring primer. 21 should be spread with a squeegee and backrolled prior to aggregate application.

When used as a filler material in concrete voids or wood voids, mix with sand, granite crystals or recycled and washed tire granules to create desired consistency for filler application.

Allow Product 21 to become tack free before applying any coatings over product 21.

Recommend surface temperature should be greater than 50F and 10 degrees above dewpoint.

Product 21 is very sensitive to heat and moisture. Higher temperatures and humidity will significantly accelerate cure time and pot life of material.

Low temperature and/or low humidity will extend cure time.

TECHNICAL DATA

Coverage Rate.....	1 gallon per 50-100 square feet
Dry film thickness per coat	15-30 mils
Hardness	70 shore D
Viscosity at 80°F (24°C), Brookfield	
Part-A and Part B combined	600 ± 50 cps
Mix Ratio, by volume	2A:1B
Pot Life, 75°F @ 50% R.H.	20-30 minutes
Total solids by weight/volume	100%
Volatile Organic Compounds	0%

EQUIPMENT CLEANUP

Equipment should be cleaned immediately with an approved environmentally safe solvent or allowed to dry prior to disposing of in accordance with local laws.

STORAGE

Product 21 has a shelf life of 1 year from date of manufacture

LIMITATIONS

Not UV Stable

Surfaces must be dry, clean and free of foreign matter prior to application

Containers must be used in a timely manner after opened

Product 21 is hard to clean up after it is cured

Do not dilute Product 21

Mix no more than enough material that can be used in 20 minutes

WARNING

This product contains epoxy resin and curative materials.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: POLY EPOXY 21 Side-A

SECTION I - COMPANY IDENTIFICATION

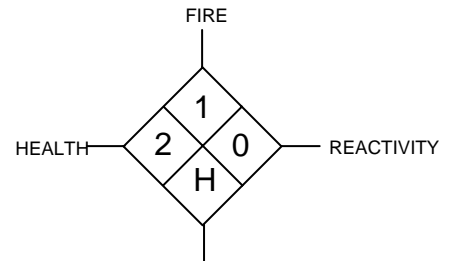
MANUFACTURER'S NAME: Custom Linings

ADDRESS: 15790 Fairway Drive, Buena Vista, Colorado 81211

INFORMATION PHONE: 719-395-4414

EMERGENCY CONTACT: 888-878-5233

DATE REVISED: March 16, 2004



PERSONAL PROTECTION (SECTION VIII)

HMIS HAZARD RATING
LEAST ----- 0 SLIGHT ---- 1
MODERATE --- 2 HIGH ----- 3
EXTREME ---- 4

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

HAZARDOUS COMPONENTS	OCCUPATIONAL EXPOSURE LIMITS				VAPOR PRESSURE	
	CAS NUMBER	OSHA PEL	ACGIH TLV	MFG TLV	mm	Hg @ TEMP
BISPHENOL-A/ EPICHLOROHYDRIN RESIN	25068-38-6	N/E	N/E			
ALKYL(C12-C14) GLYCIDYL ETHER	68609-97-2	N/E	N/E			

* No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372. Information concerning non-hazardous ingredients is considered a Trade Secret.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: N/A

SPECIFIC GRAVITY: (H₂O=1): 1.09

COATING V.O.C.: 90 g/l (0.75 lb/gal)

VAPOR DENSITY: Heavier than air

EVAPORATION RATE: N/A

SOLUBILITY IN WATER: Slight

APPEARANCE AND ODOR: Thin blue liquid, mild odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >93°C (200°F)

METHOD USED: TCC

FLAMMABLE LIMITS IN AIR BY VOLUME: Lower: N/E

Upper: N/E

EXTINGUISHING MEDIA: Dry chemical, foam, carbon dioxide, water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH approved self-contained breathing apparatus in positive pressure mode with full-face piece. Boots, gloves (neoprene), goggles, and full protective clothing are also required. Excessive pressure or temperature may cause explosive rupture of containers.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may rupture due to very high temperature or induced pressure.

SECTION V - REACTIVITY DATA

STABILITY: Stable under normal conditions.

CONDITIONS TO AVOID: Heat, high temperature and open flame. Contact with incompatible materials in a closed system will cause buildup of pressure.

INCOMPATIBILITY (MATERIALS TO AVOID): This product will react with materials such as amines, alkalis and acids. Avoid strong oxidizing agents. Some reactions can be violent.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Organic vapors and other thermal decomposition products.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VI - HEALTH HAZARD DATA

SKIN CONTACT: Frequent and prolonged contact can cause irritation and/or dermatitis.

EYE CONTACT: Can be moderately irritating to the eyes.

SKIN ABSORPTION: Systemically toxic concentrations of this product will probably not be absorbed through human skin.

INGESTION: Irritation or chemical burns of the mouth, pharynx, esophagus and stomach can develop following ingestion.

INHALATION: Vapors can irritate eyes, nose and respiratory passages. Overexposure may induce headaches, dizziness, drowsiness or unconsciousness. Chronic exposures may result in permanent decreases in lung function.

HEALTH HAZARDS: ACUTE: Exposure may cause mucous membrane and respiratory tract irritation, tightness of chest, headache, shortness of breath, and a dry cough. The effects of acute exposure may be delayed in onset up to 12-24 hours. **CHRONIC:** Repeated exposure above current occupational limits may cause an allergic sensitization of the respiratory tract. This is characterized by an asthma-like response upon re-exposure to the chemical. The symptoms may include coughing, wheezing, shortness of breath and chest tightness.

CARCINOGENICITY: NTP: No

IARC Monographs: No

OSHA Regulated: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Cardiovascular disease, asthma or asthmatic bronchitis, allergic disease, chronic respiratory disease, sinusitis, headache and dizziness.

EMERGENCY AND FIRST AID PROCEDURES: EYE CONTACT: Immediately flush eyes with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and treated by medical personnel.

INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is labored, give oxygen. Consult medical personnel. **SKIN CONTACT:** Wash material off the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

INGESTION: Give 1 or 2 glasses of water and induce vomiting. Keep victim's head below hips while vomiting to prevent aspiration of liquid into the lungs. Get medical attention. Never give anything by mouth to an unconscious person.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wear skin, eye, and respiratory protection during cleanup. Soak up material with absorbent and shovel into a chemical waste container. Cover container, but do not seal, and remove from work area. Residues from spill cleanup may continue to be regulated under provisions of RCRA and require storage and disposal as hazardous waste. For major spills, call CHEMTREC (Chemical Transportation Emergency Center) at 800-424-9300.

WASTE DISPOSAL METHOD: Residues may still be subject to RCRA storage and disposal requirements. Dispose off in compliance with all relevant local, state, and federal laws and regulations regarding treatment.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in tightly sealed containers to protect from atmospheric moisture. Store in a cool dry area. The material is combustible; the combustion products may be hazardous. Do not expose this material to open flames.

OTHER PRECAUTIONS: Prevent skin and eye contact, observe TLV limitations. Avoid breathing vapors. Workers should shower and change to fresh clothing after each shift. Individuals with existing respiratory disease such as chronic bronchitis, emphysema, or asthma should not be exposed. These individuals should be identified through baseline and annual evaluation and removed from further exposure. Medical examination should include medical history, vital capacity, and forced expiratory volume at one second.

SECTION VIII - CONTROL MEASURES

VENTILATION: Use local exhaust ventilation to keep airborne concentrations below the TLV. Follow guidelines in the ACGIH publication "Industrial Ventilation". Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

RESPIRATORY PROTECTION: Avoid breathing vapor or mists. If exposure may or does exceed occupational exposure limits (Sec. II). Use a NIOSH approved respirator to prevent overexposure. In accordance with 29 CFR 19010.134. Use either an atmosphere supplying respirator or an air-purifying respirator for organic vapors.

PROTECTIVE CLOTHING: Gloves determined to be impervious under the conditions of use should be worn always when working with this product. Depending on conditions of use, additional protection may be required such as apron, arm covers, or full body suit. Wash contaminated clothing before re-wearing. Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Clothing" published by ACGIH.

EYE PROTECTION: Chemical tight goggles and full-face shield.

OTHER PROTECTIVE EQUIPMENT AND MEASURES: Unhindered access to safety shower and eye wash stations. As a general hygienic practice, wash hands and face after use. Showers and cleaning of clothes are recommended.

SECTION IX - REGULATORY INFORMATION

DOT PROPER SHIPPING NAME: Not regulated.

STATE REGULATIONS: CALIFORNIA - As per requirements of the Safe Drinking Water & Toxic Enforcement Act of CA, USA 1985 (Proposition 65), the public is warned that materials used in this product may create an exposure to chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. This warning required by Section 25249.6 of the California Health and Safety Code.

TOXIC SUBSTANCE CONTROL ACT: All chemicals comprising this product are listed on the TSCA inventory.

USER'S RESPONSIBILITY: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions, in addition to those described herein, are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

DISCLAIMER: The information contained herein is, to the best of our knowledge and belief, accurate and current as of the date of this MSDS. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: POLY EPOXY 21 Side-B

SECTION I - COMPANY IDENTIFICATION

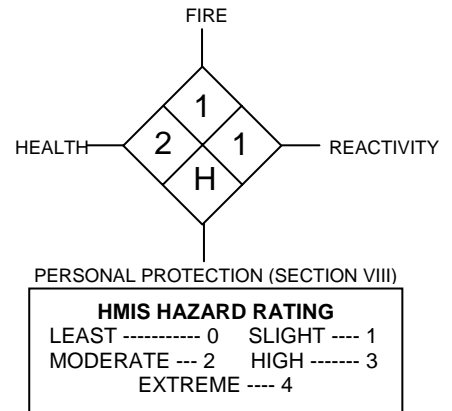
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SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

HAZARDOUS COMPONENTS	OCCUPATIONAL EXPOSURE LIMITS				VAPOR PRESSURE	
	CAS NUMBER	OSHA PEL	ACGIH TLV	MFG TLV	mm	Hg @ TEMP
BENZYL ALCOHOL	100-51-6	N/E	N/E			
BENZENE 1,3-DIMETHANEAMINE	1477-55-0	0.1 mg/m ³ Ceiling (Skin)	0.1 mg/m ³ Ceiling (Skin)			

* No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372. Information concerning non-hazardous ingredients is considered a Trade Secret.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: >100°C (212°F)

SPECIFIC GRAVITY: (H₂O=1): 1.06

COATING V.O.C.: 90 g/l (0.75 lb/gal)

VAPOR DENSITY: Heavier than air

EVAPORATION RATE: Slower than ether

SOLUBILITY IN WATER: Slightly soluble

APPEARANCE AND ODOR: Amber liquid, mild aromatic odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >103°C (219°F)

METHOD USED: TCC

FLAMMABLE LIMITS IN AIR BY VOLUME: Lower: N/E

Upper: N/E

EXTINGUISHING MEDIA: Dry chemical, foam, carbon dioxide, water spray.

SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH approved self-contained breathing apparatus in positive pressure mode with full-face piece. Boots, gloves (neoprene), goggles, and full protective clothing are also required.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may rupture due to very high temperature or induced pressure.

SECTION V - REACTIVITY DATA

STABILITY: Stable under normal conditions in closed containers.

CONDITIONS TO AVOID: Heat, high temperature, open flame, sparks, and moisture. Contact with incompatible materials in a closed system will cause buildup of pressure.

INCOMPATIBILITY (MATERIALS TO AVOID): This product will react with epoxies, isocyanates, and strong oxidizing agents. Some reactions can be violent.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Organic vapors and other thermal decomposition products.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VI - HEALTH HAZARD DATA

SKIN CONTACT: Can be corrosive to skin. Severe skin irritant. May cause skin sensitization.

EYE CONTACT: Can be corrosive to eyes. Severe eye irritant. Burns of the eye may cause blindness. Any level of contact should not be left untreated.

SKIN ABSORPTION: Systemically toxic concentrations of this product will probably not be absorbed through human skin. May cause nausea, headache, and general discomfort.

INGESTION: Irritation or chemical burns of the mouth, pharynx, esophagus and stomach can develop following ingestion, and injury may be severe leading to death unless treated promptly.

INHALATION: Vapors can irritate eyes, nose and respiratory passages. Over exposure may induce headaches, dizziness, drowsiness or unconsciousness may severely damage contacted tissue and produce scarring. Chronic exposures may result in permanent decreases in lung function.

HEALTH HAZARDS: ACUTE: Exposure may cause mucous membrane and respiratory tract irritation, tightness of chest, headache, shortness of breath, and a dry cough. The effects of acute exposure may be delayed in onset up to 12-24 hours. **CHRONIC:** Repeated skin exposure above current occupational limits may cause an allergic sensitization of the respiratory tract. This is characterized by an asthma-like response upon re-exposure to the chemical. The symptoms may include coughing, wheezing, shortness of breath and chest tightness.

CARCINOGENICITY: NTP: No IARC Monographs: No OSHA Regulated: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Cardiovascular disease, asthma or asthmatic bronchitis, allergic disease, chronic respiratory disease, skin disorders, allergies, sinusitis, headache, dizziness.

EMERGENCY AND FIRST AID PROCEDURES: EYE CONTACT: Immediately flush eyes with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and treated by medical personnel. **INHALATION:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is labored, give oxygen. Consult medical personnel. **SKIN CONTACT:** Wash material off the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse. **INGESTION:** Do not induce vomiting. Give 3 or 4 glasses of water to drink and refer person to medical personnel. Never give anything by mouth to an unconscious person.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

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WASTE DISPOSAL METHOD: Residues may still be subject to RCRA storage and disposal requirements. Dispose off in compliance with all relevant local, state, and federal laws and regulations regarding treatment.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in tightly sealed containers to protect from atmospheric moisture. Store in a cool dry area. The material is combustible; the combustion products may be hazardous. Do not expose this material to open flames, spark or other sources of ignition.

OTHER PRECAUTIONS: Prevent skin and eye contact. Observe TLV limitations. Avoid breathing vapors. Workers should shower and change to fresh clothing after each shift. Individuals with existing respiratory disease such as chronic bronchitis, emphysema or asthma should not be exposed. These individuals should be identified through baseline and annual evaluation and removed from further exposure. Medical examination should include medical history, vital capacity, and forced expiratory volume at one second.

SECTION VIII - CONTROL MEASURES

VENTILATION: Use local exhaust ventilation to keep airborne concentrations below the TLV. Follow guidelines in the ACGIH publication "Industrial Ventilation". Exhaust air may need to be cleaned by scrubbers or filters to reduce environmental contamination.

RESPIRATORY PROTECTION: In poorly ventilated areas, a cartridge mask NIOSH approved for organic vapors is recommended under the following conditions: emergency situations, when product vapor concentration is greater than 20 ppm for a period longer than 15 min., During repair and cleaning of equipment, during transfer or discharge of the product.

PROTECTIVE CLOTHING: Gloves determined to be impervious under the conditions of use should be worn always when working with this product. Depending on conditions of use, additional protection may be required such as apron, arm covers, or full body suit. Wash contaminated clothing before re-wearing. Protective clothing should be selected and used in accordance with "Guidelines for the Selection of Chemical Protective Clothing" published by ACGIH.

EYE PROTECTION: Chemical tight goggles and full-face shield.

OTHER PROTECTIVE EQUIPMENT AND MEASURES: Unhindered access to safety shower and eye wash stations. As a general hygienic practice, wash hands and face after showers and cleaning of clothes are recommended.

SECTION IX - REGULATORY INFORMATION
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DOT PROPER SHIPPING NAME: Not regulated.

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TOXIC SUBSTANCE CONTROL ACT: All chemicals comprising this product are listed on the TSCA inventory.

USER'S RESPONSIBILITY: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions, in addition to those described herein, are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

DISCLAIMER: The information contained herein is, to the best of our knowledge and belief, accurate and current as of the date of this MSDS. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Custom Linings representative or visit our website for current technical data and instructions.

SAFETY PRECAUTIONS

This product is for industrial use only by professional applicators and is not intended or suitable for use in or around a household or residential property. Keep away from children and household items. This material contains polyisocyanates. Vapors and spray mist are harmful. Improper handling and use may be hazardous. At all times safety precautions must be strictly followed during storage, handling and application.

WARNING

Individuals with chronic respiratory problems or prior respiratory reactions to such materials should not be exposed to vapors. All personnel entering the application area, including the applicator must wear properly fitted, NIOSH/MSHA approved, fresh air positive pressure air respirators with a full face piece or an air supplied hood.

Keep the material away from sparks, flash and open flames. Containers, even those that have been emptied, may contain dangerous and explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers. Do not pressurize containers to empty them.

LIMITED WARRANTY

Custom Linings warrants its products to be free of manufacturing defects and that they will meet *Custom Linings* current published physical properties. *Custom Linings* warrants that its products, when properly installed by a licensed applicator according to *Custom Linings* guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of three (3) years. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by *Custom Linings* of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. *Custom Linings* shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. *Custom Linings* shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. *Custom Linings* reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and *Custom Linings* makes no claim that these tests or any other tests, accurately represent all environments.