



Novolac Epoxy

VEN 1000 – High Chemical Resistant Epoxy Gel

VEN 500 – Chemical Resistant Epoxy Gel

Earth Shield® VEN 1000 and VEN 500 are trowel grade epoxy gels designed to adhere Earth Shield Retrofit Waterstop (part no. JP320L, JP336L, JP325T, JP450T, *et al*) to existing concrete surfaces, as well as a variety of maintenance and bonding applications requiring extreme chemical resistance.

Applications

- Primary and secondary containment
- Refineries
- Fueling areas
- Pulp & paper
- ... And many more!

VEN 1000 Physical Properties	
Adhesion Strength	2,800 psi
Color	Light gray
Kit Size	1 gallon
Flash Point	250°F
Specific Gravity (Resin)	1.51

VEN 1000 Physical Properties	
Specific Gravity (Hardener)	.95
Volatile Organic Compounds	0 grams per liter
Weight Per Gallon	11.39 lbs.
Pot Life* at 40°F	5 hours, 40 min.
Pot Life* at 75°F	1 hour
Pot Life* at 90°F	25 minutes
High Temp. Dry Service	450°F
High Temp. Splash/Spill Service	360°F
High Temp. Immersion Service	300°F

VEN 500 Physical Properties	
Adhesion Strength	2,850 psi
Color	Light gray
Kit Size	1 gallon
Flash Point	250°F
Specific Gravity (Resin)	1.36
Specific Gravity (Hardener)	.82
Volatile Organic Compounds	0 grams per liter
Weight Per Gallon	10.20 lbs.
Pot Life* at 40°F	8 hours, 30 min.
Pot Life* at 75°F	45 minutes
Pot Life* at 90°F	30 minutes
High Temp. Dry Service	250°F
High Temp. Splash/Spill Service	190°F

High Temp. Immersion Service	150°F
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Mixing Instructions

1. Place all of part "B" into part "A" container.
2. Mix thoroughly until the material is uniform in color (no streaks). Scrape sides of can to insure there are no unmixed areas. Unmixed product will not properly cure.
3. Once mixed, remove putty from can and place on rolling tray, cardboard, or wooden board. Spread putty over surface of board. **Due to exothermic heat, putty left in container will accelerate the cure time, causing epoxy to harden too quickly. Try to keep the epoxy depth below 3/8" to prolong the pot life.*

Coverage

- 1/8" depth by 3" wide: 50 lft
- 1/8" depth by 4.5" wide: 37.5 lft

Placement

Prepare existing concrete by grinding away any irregularities. Clean concrete by using wire brush, needle gun, high-pressure water or sand blasting. Remove all grease and laitance.

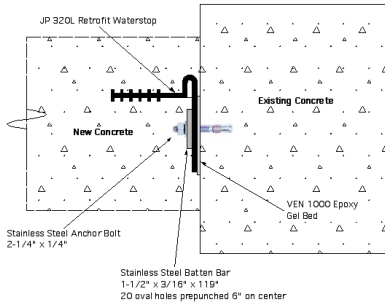
For JP320L & JP336L

Apply continuous bed of epoxy paste using a 1/4" square notched trowel to provide approximately 1/8" finished depth by 3" wide bed of epoxy for JP 320L and JP 336L Retrofit Waterstop profiles.

Earth Shield® Chemical Resistant Waterstop *manufactured by JP Specialties, Inc.*

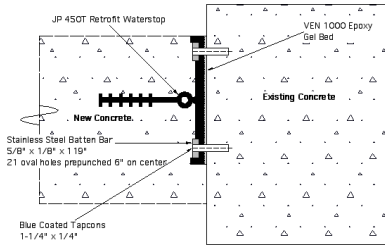
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For JP325T

Apply continuous bed of epoxy paste using a 1/4" square notched trowel to provide approximately 1/8" finished depth by 3.5" wide bed of epoxy for JP325T Retrofit Waterstop profile.



For JP450T

Apply continuous bed of epoxy paste using a 1/4" square notched trowel to provide approximately 1/8" finished depth by 4.5" wide bed of epoxy for JP450T Retrofit Waterstop profile.

Increase epoxy depth to fill in voids or irregularities in concrete where necessary. Consult Earth Shield Chemical Resistant Waterstop Retrofit Jobsite Installation Guide for additional installation instructions.

Safety

Read and understand MSDS for all products. Wear rubber gloves and eye protection at all times. Use dust mask when cleaning. Keep fresh water on site at all times. Do not ingest or inhale.

First Aid

- Eye contact — Flush with water for 15 minutes and seek medical attention.
- Skin contact — Wash with soap and water, consult physician if rash occurs.
- Ingestion — Give large quantities of water, do not induce vomiting, seek medical attention.
- Inhalation of vapor — Remove to fresh air, apply oxygen if necessary.

Storage

- Keep stored in tightly sealed containers. Avoid excessive heat or flames.
- Hot environment — Store products between 70 to 75°F 48 hours prior to application.
- Cold environment — Store products at or above 80°F for 24 hours prior to application.
- Keep products in a cool area during use.
- Do not use products at temperatures above 90°F, or below 40°F (surface temperature).

Additional Information

Please contact Earth Shield Technical Support prior to use of this product regarding any additional questions.

Chemical Resistance Key

- E = Excellent
- G = Good
- SC = Secondary Containment (72 hours)
- T = Temporary Service (3 hours)
- NR = Not Recommended
- NE = Not Evaluate

Material	Earth Shield® VEN 1000	Earth Shield® VEN 500
Acetic Acid - 10%	E	E
Acetic Acid - 33%	E	NR
Acetic Acid Glac.	S - E (H C)	NE
Acetone	E	NE
Aluminum Bromide	E	E
Aluminum Chloride	E	E
Aluminum Fluoride	E	E
Aluminum Hydroxide	E	E
Aluminum Nitrate	E	E
Aluminum Sulfate	E	E
Ammonia	S	S
Ammonia Bisulfite	E	E
Ammonium Chloride	E	E
Ammonium Fluoride	E	E
Ammonium Hydroxide	E	E
Ammonium Lauryl Sulfate	E	E
Ammonium Nitrate	E	E
Ammonium Persulfate	E	E
Ammonium Sulfide	E	E
Amyl Alcohol	E	S
Barium Chloride	E	E
Barium Hydroxide	E	E
Barium Sulfide	E	E
Beer	E	S
Benzoic Acid	E	E
Benzyl Chloride	E	S
Black Liquor	E	E
Bleach (Sodium Hypochlorite 20%)	E	E
Boric Acid	E	E
Brine	E	E
Butanol	E	S
Butyl Acetate	E	S
Butyl Acrylate	E	S

Material	Earth Shield® VEN 1000	Earth Shield® VEN 500
Butyl Cellosolve Acetate	E	S
Cadmium Chloride	E	E
Cadmium Plating Cyanide	E	E
Calcium Bisulfite	E	E
Calcium Chloride	E	E
Calcium Hydroxide	E	E
Calcium Hypochlorite	S	S
Calcium Nitrate	E	E
Calcium Sulfate	E	E
Carbon Dioxide	E	E
Carbon Tetrachloride	E	S
Castor Oil	E	E
Cellosolve Acetate	E	S
Chlorine Gas (Dry & Wet)	S	T
Chlorobutane	E	S
Chloroform	E	T
Chloro sulfuric Acid	S	S
Chromic Acid 10%	E	T
Chromic Acid 50%	E	E
Citric Acid	E	E
Copper Chloride	E	E
Copper Cyanide	E	S
Copper Nitrate	E	E
Copper Sulfate	E	E
Corn Oil	E	T
Cresylic Acid	S	T
Crude Oil (Sour)	E	E
Cumene	E	S
Cyclohexane	E	S
Cyclo-hexanone	S - E (HC)	S
Dibutyl Phthalate	E	E
Dichloro-acetic Acid	S	T
Dichloro-benzene	E	S

Material	Earth Shield® VEN 1000	Earth Shield® VEN 500
Diesel Fuel	E	E
Diethylamine	E	T
Dimethyl Aniline	E	S
Dimethyl Formamide	S	NE
Dinitro Benzene	S - E (HC)	NE
Divinyl Benzene	E	NE
Ethoxy Ethanol	E	S
Ethy Acetate	E	S
Ethyl Alcohol	E	S
Ethyl Chloride	E (HC)	NR
Ethylene Dichloride	E (HC)	NR
Ethylene Glycol	E	E
Ethyl Sulfate	E	E
Fatty Acids	E	E
Ferric Chloride	E	E
Ferric Nitrate	E	E
Ferrous Chloride	E	S
Fluoboric Acid	E	E
Fuel Oil	E	T
Furfuryl Alcohol	E	E
Gasoline	E	E
Glycerine	E	E
Grape Juice	E	E
Green Liquor	E	E
Heptane	E	E
Hexane	E	T
Hydrobromic Acid 20%	E	S
Hydrochloric Acid 25%	E	E
Hydrochloric Acid 36%	E	S
Hydrofluoric 25%	E	S
Hydrofluoric 49%	S	S
Hydrogen Peroxide	S	T
Hydrogen Sulfide Gas	E	E
Isopropyl Acetate	E	S

Material	Earth Shield® VEN 1000	Earth Shield® VEN 500
Isopropyl Alcohol	E	S
Jet Fuel	E	S
Kerosene	E	E
Lactic Acid	S	S
Lauryl Chloride	E	E
Lead Acetate	E	E
Lithium Broide	E	E
Lithium Hydroxide	E	E
Magnesium Bisulfite	E	E
Magnesium Carbonate	E	E
Magnesium Chloride	E	E
Magnesium Hydroxide	E	E
Mercuric Chloride	E	S
Methanol	E	S
Methyamyl Alcohol	E	NR
Methylene Chloride	E (HC)	S
Methyl Ethyl Ketone	E	E
Milk	E	E
Mineral Spirits	E	E
Muriatic Acid	E	E
Naphtha	E	NR
Nitric Acid 10%	E	S
Nitric Acid 25%	E	S
Nitric Acid 50%	S	NR
Nitric Acid 98%	NR	S
N Octyl Alcohol	E	E
Oils Vegetable	E	E
Oxalic Acid	S	S
Perchloric Acid	S	T
Phenol 85%	S	S
Phosphoric Acid 15%	E	E
Phosphoric Acid 50%	E	S
Phosphoric Acid 80%	E	S
Potassium Acetate	E	E

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Material	Earth Shield® VEN 1000	Earth Shield® VEN 500
Potassium Chloride	E	E
Potassium Hydroxide 50%	E	E
Potassium Nitrate	E	E
Potassium Sulfate	E	E
Propylene Glycol	E	E
Salicylic Acid	E	E
Silver Nitrate	E	E
Sodium Bisulfite	E	E
Sodium Chlorite	E	E
Sodium Hydroxide 50%	E	E
Sodium Phosphate	E	E
Stannous Chloride	E	E
Styrene	S	S
Sulfite Liquor	E	E
Sulfuric Acid 10%	E	E
Sulfuric Acid 50%	E	S
Sulfuric Acid 98%	E	S

Material	Earth Shield® VEN 1000	Earth Shield® VEN 500
Tannic Acid	E	E
Tetrachloro Ethane	E	S
Titanium Tetrachloride	E	S
Toluene	E	E
Tricresyl Phosphate	E	E
Triethylamine	S	S
Turpentine	E	E
Vinegar	E	S
Water (DI)	E	E
White Liquor	E	E

Warranty Information

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and

the following is made in lieu of all warranties, express or implied: Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for the intended use, and user assumes all risk and liability whatsoever in connection therewith. No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of seller and manufacturer.