March 1986

BWE BETTE ENVIR

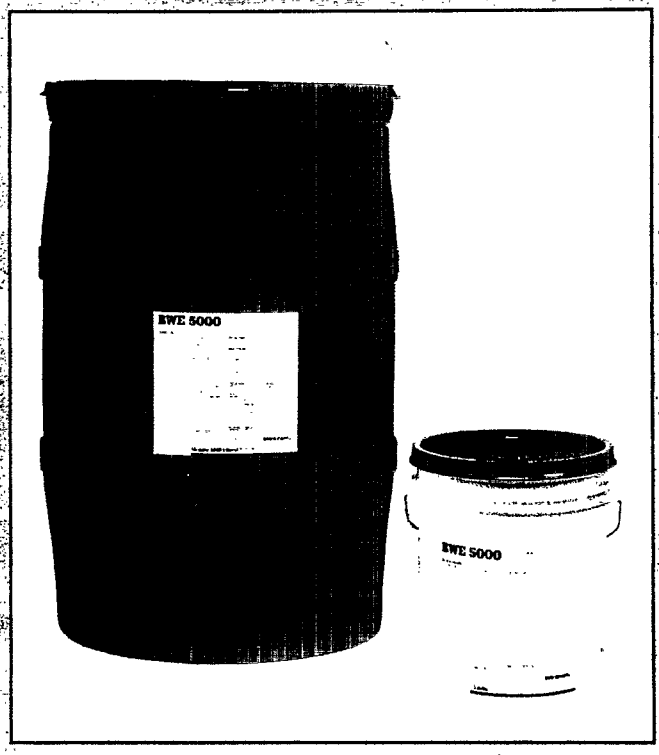
PLAINTIFF'S
EXHIBIT
KRC-2221

Now Available For Asbestos Remc

BWE 5000™

Patent Pending

Asbestos Chemical Removal Encapsulant



ASBESTOS PR
LOCK IT
WITH BWE 3000

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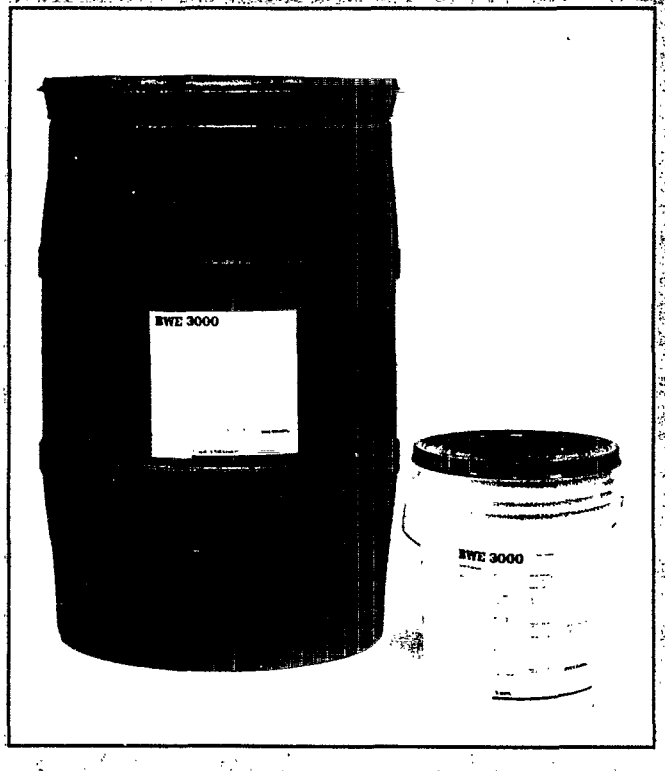
BWE 3000™

Asbestos Penetrating Encapsulant



OBLEMS . . .
DOWN
AND BWE 5000

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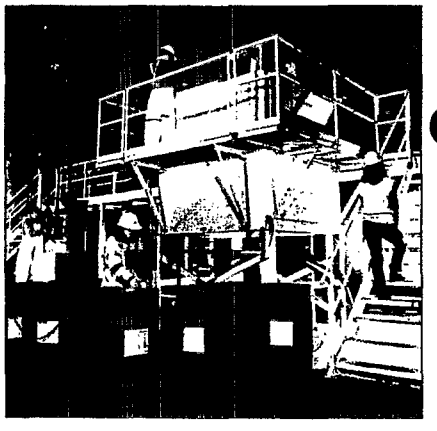
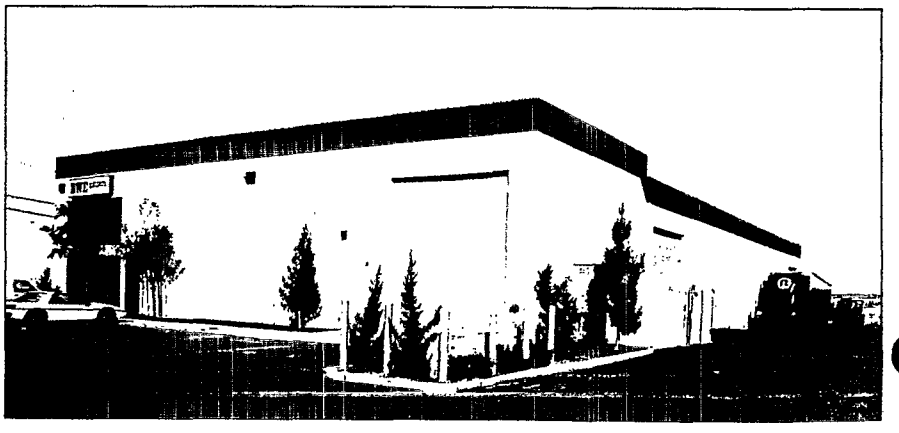
1A 187712

BWE™ Delivers Quality



BWE corporate headquarters, located in Las Vegas, Nevada, comprise 25,000 square feet of manufacturing and executive offices, to provide quality and service to our customers and to the industry.



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BWE™

. . . when it comes to asbestos. "no level of exposure is without risk." Lee M. Thomas EPA Administrator Jan. 23, 1986

NOTED AUTHORITIES SAY. . .

"SUITABLE FOR ASBESTOS"

"THE RESULTS OF THE EVALUATION OF BWE 3000 SHOW IT TO BE AN ACCEPTABLE MATERIAL FOR THE ENCAPSULATION OF FRIABLE MATERIALS CONTAINING ASBESTOS."

BATTELLE REPORT, PAGE 7

"OUTPERFORMS WATER"

"HAD I.T. BEEN REQUIRED TO USE WATER, OR TO REMOVE THE AMOSITE DRY, I AM QUITE CERTAIN THAT WE COULD NOT HAVE ACHIEVED THESE RESULTS."

I.T. CORP. TECH. PAPER, FEB. 1986 N.A.C. CONFERENCE, PAGE 7

"BWE 3000 AND BWE 5000 LOCKS DOWN ASBESTOS FIBERS"

"OBSERVATION WITH THE SCANNING ELECTRON MICROSCOPE, THE FIBERS ARE COMPLETELY ENCAPSULATED. THE ENCAPSULATION IS COMPLETE ON THE SURFACE AND BELOW THE SURFACE WHEN THE ENCAPSULATING MATERIAL IS ALLOWED TO SOAK INTO THE SURFACE."

NORMAN M. HODGKIN, PH.D. — TESTING REPORT, PAGE 1

"NON-FRIABLE"

"ACM REMOVED WITH BWE SHOULD NOT RESULT IN THE CREATION OF FRIABLE ASBESTOS."

I.T. CORP. TECH. PAPER, PAGE 7

"NON-AIRBORNE"

"THE CONCLUSIONS REACHED FROM OBSERVING THESE PHOTOMICROGRAPHS WAS THAT THE PARTICLES RELEASED DURING IMPACT WOULD NOT FLOAT IN THE AIR BUT DROP DIRECTLY TO THE FLOOR."

BATTELLE REPORT, PAGE 7

"WETS CHRYSOTILE AND *AMOSITE FIBERS*"

"BWE 3000 ENCAPSULANT WETS BOTH TYPES OF ASBESTOS FIBERS (CHRYSOTILE AND AMOSITE)."

BATTELLE REPORT, PAGE 7

"NO FREE STANDING CONTAMINATED LIQUID TO DISPOSE OF"

"THE BWE 5000 READILY PENETRATED INTO THE ACM SO THAT THERE WAS NO FREE STANDING LIQUID IN THE WORK AREA OR WASTE BAGS."

I.T. CORP. TECH. PAPER, PAGE 5

"POST DISPOSAL HAZARD REDUCED"

"THE POTENTIAL POST-DISPOSAL HAZARD ASSOCIATED WITH BAG PUNCTURES AND LEAKS IS SIGNIFICANTLY REDUCED WHEN BWE 5000 IS USED. BECAUSE BWE 5000 IS AN ENCAPSULANT, A PUNCTURE OR LEAK IN A BAG OF ACM REMOVED WITH BWE SHOULD NOT RESULT IN THE CREATION OF FRIABLE ASBESTOS."

I.T. CORP. TECH. PAPER, PAGE 7

1A 187714

BWE™ Locks Down Asbestos Fibers

BIG BENEFITS OF BWE'S PRODUCTS

- THE BEST TESTED PRODUCTS AVAILABLE.
- APPROVED BY BATTELLE LABS FOR U.S. EPA.
- SAVES YOU MONEY.
- SAVES YOU TIME.
- PRODUCES LOWER FIBER COUNTS THAN WATER.
- MOST EFFECTIVE PRODUCT FOR AMOSITE REMOVAL AND ENCAPSULATION.
- REDUCES SECONDARY CONTAMINATION TO WORKERS, THEIR FAMILIES AND BUILDING OCCUPANTS.
- ELIMINATES NEED FOR DRY REMOVAL.
- NON-FRIABLE AFTER DRY.
- REDUCES LONGITUDINAL LIABILITY.
- REDUCES CLEAN UP TIME.
- REDUCES DISPOSAL COSTS.
- ELIMINATES CONTAMINATED WATER IN THE WORK AREA.
- REDUCES LIABILITY FOR HAZARDOUS WASTE DUMP CLEAN UP.
- REDUCES POTENTIAL POST DISPOSAL HAZARDS ASSOCIATED WITH BAG PUNCTURES AND LEAKS.
- THE ENCAPSULATING PROPERTIES OF BWE 5000 REDUCE THE POSSIBILITY OF RECONTAMINATION AFTER REMOVAL IS COMPLETED.
- WETS AND ENCAPSULATES.

BATTELLE REPORT CONCLUDED THAT BWE 3000 IS "AN ACCEPTABLE MATERIAL FOR THE ENCAPSULATION OF FRIABLE MATERIALS CONTAINING ASBESTOS."

BWE™ Over 60 Tests Performed

TESTED IN ACCORDANCE WITH THE RIGID GUIDELINES OF THE FOLLOWING:

BATTELLE COLUMBUS LABORATORIES

PERFORMED OVER 10 TESTS ON BWE 3000 FOR THE U.S. EPA AND HAS RATED BWE 3000 AS AN "ACCEPTABLE MATERIAL FOR THE ENCAPSULATION OF FRIABLE MATERIALS CONTAINING ASBESTOS."

- FLAME SPREAD
- SMOKE GENERATION
- TOXIC GAS RELEASE
- PENETRATION
- IMPACT RESISTANCE
- COHESION/ADHESION
- WATER SOLUBILITY
- ABRASION RESISTANCE
- EFFECTIVELY WETS AMOSITE AND CHRYSOTILE
- SCANNING ELECTRON MICROSCOPY
- VISCOSITY
- PERCENT SOLIDS BY WEIGHT

U.S. TESTING COMPANY, INC.

PERFORMED

- FLAME SPREAD
- SMOKE GENERATION
- FUEL CONTRIBUTION
- TOXIC GAS RELEASE (9 GASES TESTED)
- IMPACT RESISTANCE
- COHESION/ADHESION
- BOND/ADHESION STRENGTH
- FUNGUS RESISTANCE
- MOISTURE ABSORPTION
- CORROSIVENESS
- ODOR EMISSION
- D.O.T. SKIN CORROSION
- SKIN IRRITATION
- EYE IRRITATION
- ABRASION RESISTANCE
- COVERAGE
- TOXICITY

S.G.S. CONTROL SERVICES, INC.

PERFORMED

- WEIGHT PER GALLON
- VISCOSITY
- SPECIFIC GRAVITY
- TOTAL SOLIDS (GRAVIMETRIC)
- COLOR
- PH
- FLASH POINT
- BOILING POINT
- SOLVENTS (GAS CHROMOTOGRAPHY)
- SHELF LIFE
- SERVICE TEMPERATURE LIMIT

THE MOST TECHNOLOGICALLY ADVANCED AND TESTED PRODUCTS AVAILABLE FOR THE REMOVAL AND ENCAPSULATION OF ASBESTOS-CONTAINING MATERIALS

1A 187716

BWE™ Testimonials Tell BWE Story

READ WHAT CONTRACTORS AND

"BWE SAVES US MONEY! . . .

. . . We use BWE 3000 and BWE 5000 on every job we do. The fiber counts we receive are consistently lower than any other product or method, and the jobs take less time to complete, giving us a better competitive edge."

J.J. Middleton
President
Asbestos Removal Specialists of Alaska
Fairbanks, AK

BEST PRODUCTS AVAILABLE!

"Your BWE 3000 and BWE 5000 are absolutely the best products that we've ever used for asbestos encapsulation and removal!"

Wayne Watkins
Epoxy Systems, Inc.
Las Vegas, NV

AS PUBLISHED IN A TECHNICAL PAPER PRESENTED AT THE N.A.C. BY I.T. CORPORATION

"The potential post disposal hazard associated with bag punctures and leaks is significantly reduced when BWE 5000 is used. Because BWE 5000 is an encapsulant, a puncture or a leak in a bag of A.C.M. removed with BWE should not result in the creation of friable asbestos.

"I.T.'s positive experience with BWE removal encapsulant has lead us to conclude that this type of removal technology contributed to maintaining low airborne asbestos concentrations and is therefore an attractive alternative to water removal."

International Technologies Corp.
Knoxville, TN
Feb. 1986

MOST EFFECTIVE PRODUCT! SAVED 20%!

"When it comes to amosite, we had doubts that any product would work until we used your BWE 5000. The fiber counts we received while using your product were absolutely the lowest we've ever seen!"

Ray Lindsay
J.F. Walton & Co., Inc.
Boston, MA

BUILDING OWNERS HAVE TO SAY.

BETTER PENETRATION AND LOWER FIBER COUNTS . . .

"In comparing your BWE 3000 and BWE 5000 with other products we've used, we have determined that we are able to get better penetration, lower fiber counts, and easier overall operations during asbestos abatement and encapsulation projects, which has resulted in bottom line net savings to our company!"

Rockwell D. Schujter
President
Rocmont Industrial Corporation
Salt Lake City, UT

FAR SUPERIOR . . .

"We've tested and used just about everybody's product for asbestos abatement work and we've found both your BWE 3000 and BWE 5000 to be far SUPERIOR to the others."

Skip Norris
Norwest, Inc.
San Diego, CA

"LONG-TERM SAFETY IS OUR CONCERN . . .

. . . We conducted our own tests on every encapsulant product available and found that only BWE 3000 gave us the results we were looking for. BWE 3000 not only penetrated 2-1/2 inches, it also made the material harder than any of the paints we tested. We've since purchased and will continue to purchase BWE 3000 for all of our asbestos problems."

A major midwestern university

EXCEPTIONAL PRODUCTS!

"We've found your BWE 3000 and BWE 5000 to be exceptional asbestos abatement products and they consistently reduce our bottom line costs."

Chris Holman
President
CHDD Environmental Services
Kokomo, IN

COMPLETELY ENCAPSULATED . . .

"I have examined the effect of BWE 3000 and BWE 5000 on amosite and chrysotile asbestos fibers in regards to the encapsulation of the asbestos fibers. In my professional opinion and by my observation with the scanning electron microscope, the asbestos fibers are completely encapsulated."

Norman M. Hodgkin, Ph.D.
President
Micrographics
Irvine, CA

1A 187718

BWE™ Quality, Protection and Savings

ADVANTAGES OF BWE 3000 AND BWE 5000

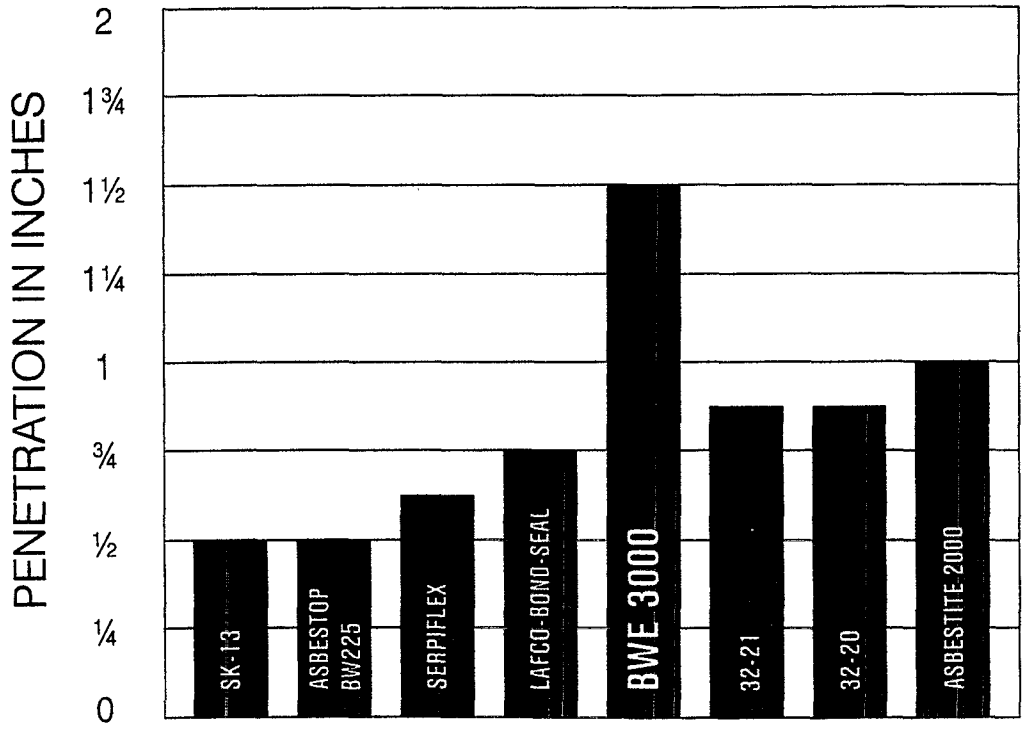
- PROVIDES THE LOWEST FIBER COUNTS DURING AND AFTER APPLICATION
- SAVES YOU MONEY
- REDUCES THE COST OF BOTH REMOVAL AND ENCAPSULATION
- TESTED AND APPROVED IN ACCORDANCE WITH U.S. EPA AND BATTELLE SPECIFICATIONS
- REDUCES CLEAN UP COSTS
- REDUCES DISPOSAL COSTS
- ELIMINATES CONTAMINATED WATER IN THE WORK AREA
- SIGNIFICANTLY REDUCES SECONDARY CONTAMINATION TO WORKERS AND THOSE THEY COME IN CONTACT WITH AFTER LEAVING THE JOB SITE
- REDUCES LONGITUDINAL LIABILITY
- MOST EFFECTIVE PRODUCT FOR AMOSITE REMOVAL AND ENCAPSULATION
- REDUCES POTENTIAL LIABILITY ASSOCIATED WITH HAZARDOUS WASTE DUMP CLEAN UP
- TOTALLY ELIMINATES DRY REMOVAL
- ODORLESS
- COLORLESS
- NON-IRRITATING TO SKIN
- NON-FLAMMABLE
- MORE EFFECTIVE THAN AMENDED WATER
- EXCEEDS ALL FEDERAL, STATE, MILITARY, AND UNIFORM BUILDING CODE REQUIREMENTS AND SPECIFICATIONS
- APPROVED BY THE CALIFORNIA STATE FIRE MARSHAL'S OFFICE
- APPROVED BY THE CITY AND COUNTY OF DENVER
- REDUCES THE HEALTH HAZARD TO WORKERS
- PROVIDES A SAFER ENVIRONMENT FOR POST ABATEMENT BUILDING OCCUPANTS
- PENETRATED DEEPER THAN ANY OTHER ENCAPSULANT TESTED BY BATTELLE
- ELIMINATES THE NEED FOR HEATED TRANSPORTATION AND STORAGE AREAS
- ONLY PRODUCT AVAILABLE THAT CAN BE FROZEN, THAWED, STIRRED AND USED WITHOUT ANY ADVERSE EFFECTS ON ITS PERFORMANCE
- BWE 3000 IS 1 OF ONLY 9 PENETRATING ENCAPSULANTS RATED "ACCEPTABLE" BY U.S. EPA AND BATTELLE
- NON-CORROSIVE

1A 187719

BWE™ Best Performance

PENETRATION PROVIDES PROTECTION

BWE 3000 scored highest in the penetration tests conducted by Battelle Labs for the U.S. EPA.



THIS CHART SHOWS THE PENETRATION IN INCHES OF EIGHT OF THE PRODUCTS TESTED BY BATTELLE LABS.

1A 187720

BWE™ Letter from the President

WHY IT WORKS AND WHAT IT CAN DO FOR YOU

If you are dealing with asbestos, you no doubt have conducted or will conduct a study to determine whether the asbestos-containing material (ACM) is "friable." Asbestos is friable if it can be crumbled, pulverized or reduced to powder by hand pressure. Friable asbestos is dangerous because the fibers can easily become airborne. When inhaled, asbestos fibers become lodged in the lungs and can cause asbestosis (a debilitating lung disease), mesothelioma (a cancer of the chest and abdominal lining) and cancers of the lung, esophagus, stomach and other organs.

Once you determine that a building contains friable, dangerous asbestos, you must decide what form of abatement procedure to undertake. Most abatement projects are either in place encapsulation of the ACM, or removal of the ACM. Irrespective of which procedure you choose, you are concerned about the health and safety of abatement workers and those persons who will reoccupy the building once the abatement work is concluded. If you choose removal as your abatement method, you should also be concerned about the potential liability associated with the disposal of the removed asbestos.

Until late 1984, the best available technology for asbestos removal was wet removal using a high pressure spray of water mixed with a surfactant or wetting agent ("amended water") to attempt to keep asbestos fibers from becoming airborne. Under applicable EPA and OSHA regulations, the maximum permissible airborne asbestos fiber concentration in the removal work area is 2.0 fibers per cubic centimeter. In the very near future, OSHA and EPA permissible exposure levels (PEL) will be reduced to 0.2 f/cc. EPA's own studies have led it to estimate that the use of amended water is likely to result in airborne fiber counts of 8.1 f/cc, 4 times the current PEL and 40 times the soon to be released 0.2 f/cc PEL.

You should also be aware of the fact that removal with amended water (1) creates a large volume of contaminated liquid which in many cases is being flushed down the drain and into our water system, (2) often causes damage to the interiors of buildings due to its high pressure application, (3) is creating an asbestos timebomb at waste sites, where a leak or puncture in a bag of asbestos removed with water will result in raw, friable, potentially airborne asbestos fibers, and (4) is resulting in higher fiber counts after removal than before. This last factor is easy to understand, since water cannot remove all the asbestos in a building and, once the water evaporates, residual asbestos fibers not only may, but are in fact likely to, become airborne. Simply stated, amended water is not the answer for asbestos removal.

Because the goal of asbestos abatement is to produce a safer environment, you need to know that a new technology exists which can provide that safety. BWE has developed two chemicals - BWE 3000 (a penetrating encapsulant designed for in place encapsulation of ACM) and BWE 5000 (a chemical removal encapsulant designed specifically for asbestos removal) - which we belileve surpass products and processes previously available for you to consider.

Let me highlight for you the reasons why we feel our products better address your needs (references are to the February 12, 1986 report issued by the Battelle Columbus Laboratories, and to the February 1986 technical paper presented to the National Asbestos Council by International Technology Corporation of Knoxville, Tennessee, both of which may be obtained from BWE):

1. BWE 3000, our penetrating encapsulant, has been determined by Battelle to be "an acceptable material for the encapsulation of friable materials containing asbestos" (Battelle Report, page 7). Further, Battelle, concluded that BWE 3000 penetrated 50% further than any other previously tested encapsulant.

2. International Technology Corporation's success with BWE 5000, our chemical removal encapsulant, at the Shippingport Atomic Power Station removal project, led it to conclude that BWE 5000 outperforms water (IT Technical Paper, page 7).

3. An independent test conducted for BWE by Dr. Norman M. Hodgkin of Micrographics in Irvine, California, concluded that both BWE 3000 and BWE 5000 completely encapsulated asbestos fibers in ACM comprised of 19.9% amosite and 18.6% chrysotile. Dr. Hodgkin's observations were made using a scanning electron microscope.

4. Battelle concluded that BWE 3000 wets both chrysotile and amosite fibers (Battelle Report, page 7).

5. IT found that the spraying of BWE 3000 as an encapsulant produced average fiber counts of less than 0.05 f/cc (IT Technical Paper, page 4). When Battelle studied 4 other encapsulants in 1979, Battelle concluded that "in all cases, the airborne fiber levels in the work area jumped dramatically (up to 100 times the OSHA standard of 2 f/cc) when the material was actually being encapsulated" (Battelle report to EPA, page 10).

6. Battelle concluded that test fibers (mineral wool) coated with BWE 3000 would not float in the air, but rather would, if separated from the test matrix, drop directly to the floor (Battelle Report, page 7).

7. When BWE 5000 was used by IT Corporation for removal of amosite bricks, fiber counts averaged .21 f/cc without glove bags and .06 f/cc with glove bags. More importantly, this removal was accomplished without the creation of contaminated liquid either in the work area or in hazardous waste disposal bags (IT Technical Paper, pages 5-6). When amended water is used, there can be a substantial volume of contaminated liquid which requires disposal and/or filtering.

8. Because BWE 5000 encapsulates as it removes, the removed asbestos should not become friable or airborne, thereby reducing the post-disposal hazard associated with waste bag leaks or punctures which are certain to occur at dumpsites (IT Technical Paper, page 7). Similar protection is not provided when amended water is used.

BWE's greater effectiveness in encapsulating and removing ACM will provide better protection to abatement workers and to post-abatement building occupants, will reduce post-disposal dangers and will thereby reduce the risk of liability which is a part of any abatement operation. Add to that the fact that using BWE can cut your overall project costs, and I believe that BWE is even more attractive.

In short, if there is a safer, better, less expensive way to encapsulate or remove asbestos, you ought to be using it.

We at BWE appreciate your having taken the time to review our product information. We invite you to contact our factory representative if you have any questions.

Sincerely,

Dennis C. Webb

Dennis C. Webb, President

BWE™ Table of Contents

BWE™ Recognized by Leaders

BWE 3000 AND BWE 5000 ARE SUCCESSFULLY BEING USED BY:

- FEDERAL, STATE AND LOCAL GOVERNMENT AGENCIES
- COLLEGES AND UNIVERSITIES
- PUBLIC AND PRIVATE SCHOOLS
- HOSPITALS AND RESTAURANTS
- MAJOR BUILDING OWNERS
- CONTRACTORS
- AND OTHERS

Better Working Environments, Inc. does not publish its customer list. However, further information can be obtained by writing or calling BWE, Inc., at the address listed below.

BWE BETTER WORKING ENVIRONMENTS, INC.™
3716 Scripps Way
Las Vegas, NV 89103
(702) 871-1301

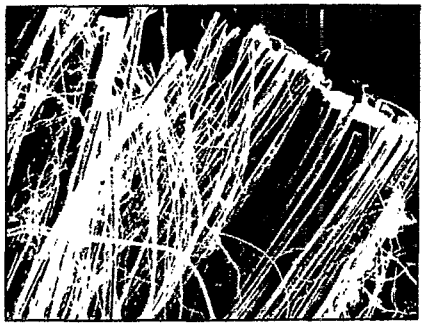
1A 187722

BWE 3000™

Patent Pending

Asbestos Penetrating Encapsulant

ENCAPSULATING ASBESTOS WITH LATEX, PLASTIC, OR RESIN PAINTS IS NOT THE ANSWER!



UNTREATED MAGNIFICATION 100 TIMES

TREATED WITH BWE 3000 MAGNIFICATION 2000 TIMES

TREATED CROSSCUT SECTION MAGNIFICATION 2000 TIMES

Asbestos has been identified as the "silent killer" of this century.

Many products for the encapsulation of asbestos-containing materials have been introduced with promises of control of friable asbestos material and future safety for post-encapsulation building occupants.

However, there remains a potentially hazardous gap between promises and performance.

Here's what you should know about the two basic types of encapsulants.

First, those defined as "bridging encapsulants" aren't really encapsulants at all. They're sealants, usually a latex paint that coats the asbestos-containing surface. Any break, puncture or crack in the sealant may permit the release of hazardous asbestos fibers.

The second type, "penetrating encapsulants," are usually plastic- or resin-based products. In the event of a fire, they may produce toxic smoke. These products cannot fully encapsulate! The plastic or resin sets an immediate bond upon contact with the asbestos-containing material so that the product cannot fully penetrate to the substrate to encapsulate the friable asbestos material. Moreover, many plastic- or resin-based encapsulants provide no lasting adhesion. Because they do not achieve full penetration, they cannot and will not provide a lasting bond with the substrate. In fact, the additional weight of a plastic- or resin-based encapsulant which cannot penetrate to the substrate actually increases the risk of delamination of the asbestos-containing material. The U.S. Environmental Protection Agency, after field testing four paint encapsulants, concluded that during the application of these paint products, the asbestos fiber counts exceeded the OSHA Permissible Exposure Limit (PEL) (2.0f/cc) by as much as 100 times.

THERE IS A PRODUCT THAT FULFILLS YOUR SAFETY NEEDS AND CREATES BETTER WORKING ENVIRONMENTS!

Recently, a new technology has been developed that fully encapsulates asbestos fibers all the way to the substrate, aids in the rebonding and restructuring of the existing material, and reduces the hazards of encapsulation that are associated with latex-, plastic-, or resin-based sealants.

Introducing BWE 3000 (patent pending) BWE 3000 is the state-of-the-art in asbestos encapsulation technology.

BWE 3000 is a ready-to-use encapsulant that penetrates asbestos-containing materials up to three inches. It coats the asbestos fibers with a durable, non-combustible adhesive coating.

While most penetrating encapsulants require high-pressure spray equipment for application, BWE 3000 doesn't. And while most require sizable quantities to cover square footage, BWE 3000 doesn't.

BWE 3000 can be sprayed on all asbestos-containing materials using 35 to 150 psi pressure, and it will cover at a rate of 25 to 50 board feet per gallon.

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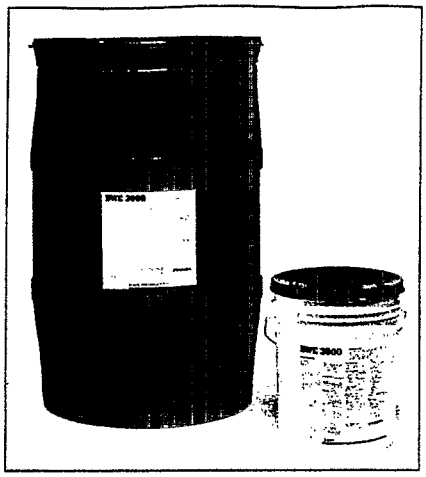
BWE 3000™

Patent Pending

Asbestos Penetrating Encapsulant



The benefits of BWE 3000.

- BWE 3000 has been tested and approved by Battelle Labs for the U.S. EPA.
- BWE 3000 quickly penetrates and encapsulates friable asbestos-containing material and fibers.
- BWE 3000 significantly reduces airborne asbestos fiber counts during encapsulation.
- BWE 3000 minimally affects the acoustical properties of existing fireproofing and insulation.
- BWE 3000 exceeds all fire and smoke regulatory standards.
- BWE 3000's unique adhesive capabilities aid in the rebonding and restructuring of faulty asbestos insulation.
- BWE 3000 exceeds the guidelines for the testing of encapsulants as described in EPA 560/5-85-024.
- BWE 3000 can be easily painted after application with any water- or oil-based paint.
- BWE 3000 is ready to use (requires no mixing or thinning).
- BWE 3000 can be stored for extended periods of time and, if ever frozen, it can be thawed, stirred and sprayed without any adverse effect on its performance.
- BWE 3000 can be sprayed with any low-pressure, high-volume sprayer capable of between 35 and 150 psi.

BWE BETTER WORKING ENVIRONMENTS, INC.™
3716 Scripps Way
Las Vegas, NV 89103
(702) 871-1301

1A 187724

BWE 3000™

Patent Pending

Asbestos Penetrating Encapsulant

The results of over 60 tests conducted at internationally recognized laboratories.

The following laboratories conducted these tests:
Battelle Columbus Laboratories
United States Testing Company, Inc.
S.G.S. Control Services, Inc.
Dyer Laboratories
Micrographics, Inc.
EAL Corporation

Better Working Environments (BWE), Inc. would be pleased to send you more information and test results. Address your request to BWE,
3716 Scripps Way
Las Vegas, NV 89103
(702) 871-1301.

1A 187725

Technical Specifications

Product: BWE 3000

Classification: Asbestos Penetrating Encapsulant

Test Analysis:

Flame Spread Index	0
Fuel Contribution Index	0
Smoke Development Index	0
Fire Rating (ASTM E84-81a)	Class A

Toxic Gas Release (ASTM E662-79), (MIL-M-14g), (NBS Tech. Note 708, App. II) (Boeing Spec. 7239)

Chlorine (Cl)	ND
Ammonia (NH_3)	ND
Phosgene (COCl)	ND
Hydrogen Chloride (HCl)	ND
Hydrogen Cyanide (HCN)	ND
Carbon Monoxide (CO), % by Vol.	0.0059
Oxides of Nitrogen (NOx), ppm	3.8
Hydrogen Fluoride (HF)	ND
Oxides of Sulfur (SOx)	ND
Formaldehyde (HCHO)	ND

ND — None Detected.

Impact Resistance (ASTM D2794)	46 in. lbs. @ 50 bd. ft./gal.
Bond/Adhesion Strength (ASTM D3359), Tape Adhesion Rating	4
Fungus Resistance (HH-I-515D)	Resistant
Moisture Absorption (HUD/FHA UM-80, para 9.5)	11.7%
Corrosiveness (HUD/FHA UM-80, para 9.6)	None
Odor Emission (HUD/FHA UM-80, para 9.11)	None
Color (ASTM D1500)	Colorless
Weight per Gallon (ASTM D1298)	10.45 lbs.
Viscosity, cps (ASTM D445)	394
Specific Gravity	1.25
Total Solids (Gravimetric)	28.95%
Solvents (Gas Chromotography)	Water
Eye Irritation (16 CFR, Ch. II, Part 1500.42)	Irritant (See MSDS)
Skin Irritation (16 CFR, Ch. IIc, Part 1500.41)	Non-Irritant
D.O.T. Skin Corrosion (49 CFR, Part 173.240)	Non-Corrosive
PH	11.2
Flash Point	None
Boiling Point	212 degrees F.
Freezing Point	30 degrees F.
Shelf Life	Indefinite
Penetration	Up to three inches
Coverage	25 to 50 board feet per gallon
Equipment Pressure	35 to 150 psi

Uses:
Walls and ceilings, insulated pipes and boilers, heat exchangers and flues, reactors, turbines, insulated machinery, furnaces and ducts, air plenums, steel columns and beams, wood, brick, and any other surface that is covered or coated with asbestos-containing material.

Surface Preparation:
Surfaces must be clean and free of grease and paint.

Coverage:
BWE 3000 is ready to use and will cover from 25 to 50 board feet per gallon, depending upon the density, depth and composition of the material that is being encapsulated.

Application Procedure:
Spray BWE 3000 with a low-pressure, airless sprayer utilizing 35 to 150 psi onto the asbestos-containing material until the surface is thoroughly wet. BWE 3000 will penetrate up to three inches of asbestos-containing material and encapsulate the asbestos fibers. Always use BWE 3000 full-strength. DO NOT DILUTE. The addition of water will change the physical characteristics of BWE 3000 and alter the product's performance.

Acoustical Plaster:
Apply one or more coats of BWE 3000 directly onto the ACM* and allow to penetrate until the surface maintains a wet look for two (2) minutes. Apply in a uniform manner to avoid excess dripping onto your plastic. Because of BWE 3000's unique wicking or capillary action, BWE 3000 will penetrate deeper into the ACM faster than any other encapsulant

BWE 3000™

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Asbestos Penetrating Encapsulant

available on the market today. DO NOT apply BWE 3000 after the initial application has begun to harden.(1,2)

Fireproofing (Spongy/Cotton Candy):

Apply one or more coats of BWE 3000 until the ACM is thoroughly saturated without causing excess dripping. BWE 3000 will penetrate up to three inches and will cover from 25 to 50 board feet per gallon. Begin applying BWE 3000 by spraying from left to right, then in an up and down motion until the desired penetration has been achieved. If in doubt as to the penetration of BWE 3000, take a plug sample and re-apply if necessary. BWE 3000 is even effective for the encapsulation of amosite.(1,2)

Fireproofing (Vermiculite/Clay Cementitious):

Apply BWE 3000 until the ACM is thoroughly wet and appears dry on the surface. Because of the density of these materials, BWE 3000 may only penetrate one-quarter inch to three-quarters of an inch per coat. These figures may vary. In any case, BWE 3000 will penetrate faster and perform better than any other product on the market.(1,2)

Lagging (Unpainted Pipe/ Boiler/Isolated):

First, clean off any excess dirt from the lagging cover. Dirt and grease will prohibit the penetration of BWE 3000 into the lagging. Second, apply BWE 3000 in a uniform pattern starting at the top of the pipe/boiler and then moving downward or around the lagging until the lagging appears wet for two (2) minutes. If in doubt as to the penetration of the BWE 3000, take a plug sample and re-apply if necessary. Be sure to spray BWE 3000 directly into the hole from which the plug sample was taken. After the application of BWE 3000, the lagging cover can be easily painted to enhance the aesthetics for your boiler room and pipe coverings. BWE 3000 will reduce the airborne asbestos fiber generation better than any other encapsulant available for pipe/boiler lagging.(1,2)

Lagging (Hot Water/Steam):

BWE, Inc. does not recommend the use of BWE 3000 on operational pipes and boiler lagging, in order to avoid the burns and scalding that are common when working with and around live hot water, steam pipes and boilers. BWE, Inc. suggests that the proper procedure would be to require the building owner to shut down and isolate the areas in which you are working.(1,2)

Painted Surfaces (Encapsulated):

BWE 3000 will not penetrate already encapsulated surfaces. The latex- and resin-based paints that have been used as encapsulants are designed not to allow water to penetrate through them. However, BWE 3000 can be injected behind the encapsulated material with the aid of an injection tool. BWE, Inc. recommends this process only for pipe/boiler lagging and wall surfaces. Applying BWE 3000 to an encapsulated ceiling matrix may cause the ceiling to fall down due to the additional weight of BWE 3000.

Spray Back:

Lightly spray BWE 3000 onto all structural steel, ceilings, walls, pipes, boilers, air plenums and concrete block after the removal of asbestos has been completed. DO NOT apply more than one coat of BWE 3000 during this process. BWE, Inc. recommends the use of BWE 5000 — Asbestos Encapsulant Remover for asbestos removal. BWE 3000 will encapsulate any materials left behind.(1,2)

Clean Up:

Use water to clean up all oversprayed materials prior to drying. If BWE 3000 has been allowed to dry, simply use BWE 5000 — Asbestos Encapsulant Remover to wipe down the area and dissolve the hardened BWE 3000. Then clean up, using hot tap water to remove any remaining solution and allow to dry. Clean all tools

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Asbestos Penetrating Encapsulant

and your spray equipment with water prior to leaving the job site for the day.

Drying Time:

BWE 3000 will begin drying within 30 minutes of application and will be dry to the touch in 24 hours. BWE 3000 will completely cure in one to two weeks, depending upon the ambient temperature and humidity.

Packaging and Storage.

BWE 3000 is packaged in heavy-duty 55-gallon blue plastic drums.

If BWE 3000 is frozen, simply thaw at room temperature and stir well.

* ACM — Asbestos Containing Material

(1) BWE 3000 will penetrate up to three (3) inches, depending upon the type and density of the ACM that is being treated.

(2) Once BWE 3000 has begun to dry (dry to the touch in 24 hours), it will not allow the application of additional coats. That's why it is important to make sure that the BWE 3000 has penetrated to the desired depth before this time.

Work Place Preparations:

Refer to U.S. EPA "Asbestos-Containing Materials in School Buildings," June 1984, Chapter 9, pages 20 to 25, and U.S. EPA "Guidance for Controlling Asbestos-Containing Materials in Buildings," June 1985, Chapter 5, pages 5 to 8.

Respiratory Equipment:

EPA, NIOSH and OSHA regulations for the training, use and maintenance of respiratory equipment are listed below for your reference.

Description	Code
"Asbestos"	**29 CFR 1910.1001**
"Respiratory Protection"	**29 CFR 1910.134**
"Respiratory Protection"	**30 CFR, Part 11**

Better Working Environments (BWE), Inc. recommends the use of Type "C", supplied-air respirators, in accordance with 29 CFR 1910.1001 (c) (2) (iii).

Protective Clothing and Equipment:

EPA and OSHA regulations for the use of protective clothing and equipment are listed below for your reference.

Description	Code
"General Requirements"	29 CFR 1910.132
"Eye and Face Protection"	29 CFR 1910.133
"Occupational Head Protection"	29 CFR 1910.135
"Occupational Foot Protection"	29 CFR 1910.136
"Sources of Standards"	29 CFR 1910.139
"Guidelines for Controlling Friable Asbestos-Containing Materials in Buildings"	EPA 560/5-85-024

BWE, Inc. recommends the use of either a full-face respirator or a half-face respirator with safety goggles or a splash shield when applying BWE 3000.

Additional Reference Material:

Description	Code
"No Visual Emissions"	38 FR 8826
"National Emissions Standards for Hazardous Air Pollutants" (NESHAPS)	40 CFR, Part 61, Section A & B
"Ban on Molded or Wet Applied Insulation"	40 FR 48292
"Ban on Spraying Asbestos-Containing Material"	43 FR 26372
"U.S. Department of Education Asbestos Scoring System"	46 FR 4536
"Work Place Standards Involving Airborne Asbestos Exposure"	47 FR 1807
"Asbestos in Schools Rule"	47 FR 23360

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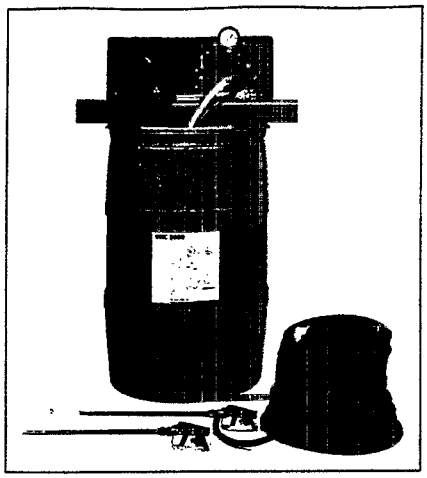
Asbestos Penetrating Encapsulant



PRODUCT WARRANTY

BETTER WORKING ENVIRONMENTS, INC. guarantees their products for the purposes for which they are intended. Since the use of, and the application of Better Working Environments' products is beyond our control, we agree only to replace or refund the purchase price of any Better Working Environments' products found by our laboratory to be defective. However, we assume no responsibility or liability beyond the purchase price of our products.

No agent, employee, distributor or other representative of Better Working Environments, Inc. has the authority to change or extend this condition of sale. Therefore, there are no other warranties, either express or implied, which extend beyond that set forth above.

"Evaluation of the Asbestos-In-Schools Identification and Notification Rule" EPA 560/5-84-005

"Asbestos in Buildings" EPA 560/5-84-006

"American National Standard Practices for Respiratory Protection" ANSI Z88.2-1969

Professional and Technical Services:

Services are available on request. Technical questions can be answered by calling (702) 871-1301.

Precautions:

Keep BWE 3000 and all chemicals out of the reach of children.

Irritation may occur if protective clothing and equipment are not worn, or if worn improperly.

BWE 3000 is just as slippery as paint encapsulants.

Do not take internally.

BWE 3000 may become sharp or abrasive when dry, depending upon the surface of the material to which it is applied.

If sprayed into eyes, flush with water. (Consult Material Safety Data Sheet.)

DO NOT DILUTE.

Do not mix with other types of chemicals.

Close container after each use.

Clean up with water prior to drying.

Read all instructions and directions before using BWE 3000.

BWE BETTER WORKING ENVIRONMENTS, INC.™
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Asbestos Penetrating Encapsulant

BWE 3000 has been rated "ACCEPTABLE" by Battelle Columbus Laboratories for the U.S. Environmental Protection Agency.

A comparison of the other products that have rated acceptable are listed below.

1	2	3	4	5	6	7	8	9	10	11	12
	ENCAPSULANT TYPE	BRAND NAME	MANUFACTURER	VISCOSITY	% SOLIDS BY WT.	PENETRATION IN INCHES	MINIMUM IMPACT RESISTANCE	MAXIMUM IMPACT RESISTANCE	SMOKE/OPEN FLAME	SMOKE/HEATED COIL	FLAME SPREAD	BTU'S
P	**BWE 3000**	**Better Working Environments, Inc.**	**15**	**30%**	**1.50**	**38**	**46**	**0%**	**0%**	**0**	**2.3**
P	Asbestite 2000	Arpin Products, Inc.	8	21%	1.00	46	60	5%	5%	2	25
P	Asbestop BW225	McGeddy Int'l.	10	22%	0.50	50	60	2%	2%	17	310
P	Cafco-Bond-Seal	U.S. Mineral Products, Inc.	10	12%	0.75	46	60	3%	NA	5	80
P	SK-13 Emulsion	National Cellulose Corp.	28	45%	0.50	50	60	0%	0%	13	230
P	32-20 & 32-21	H.B. Fuller	5	10%	0.875	50	60	3%	3%	2	30
P	Serpiflex	IPC, Corp.	260	21%	0.63	NR*	27	45%	16%	20	NR

* — Not Reported

The table is divided into twelve columns; a brief explanation of each column is given below.

1) indicates the classification by Battelle as a penetrating encapsulant (P).
2) shows the brand name of the encapsulant.
3) shows the name of the manufacturer.
4) shows the viscosity of the encapsulant in centipoises.
5) shows the encapsulant's percent solids content by weight.
6) shows the penetration in inches achieved by the encapsulant.
7) shows the minimum impact resistance in inch-pounds.
8) shows the maximum impact resistance in inch-pounds.
9) indicates the amount of smoke generated when subjected to an open flame with a General Electric CR7505 Smoke Density Indicator.
10) indicates the amount of smoke generated when subjected to a heated electric coil.
11) shows the flame spread index of the encapsulant, in accordance with ASTM E 162.
12) shows the heat evolved for encapsulant flammability, as measured in British thermal units per square foot during the test in 11).

BWE 3000™

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Asbestos Penetrating Encapsulant

ASBESTOS PENETRATING ENCAPSULANT CONVERSION TABLE

BOARD FEET TO SQUARE FEET

PENETRATION*	FACTOR**	COVERAGE PER GAL 25 BD/FT GAL***	COVERAGE PER GAL 50 BD/FT GAL***
1/4"	4	100 SQ/FT	200 SQ/FT
1/2"	2	50 SQ/FT	100 SQ/FT
1"	1	25 SQ/FT	50 SQ/FT
2"	1/2	12.5 SQ/FT	25 SQ/FT
3"	1/4	6.25 SQ/FT	12.5 SQ/FT

* — Penetration is determined by contents of material and surface, that BWE is being applied to.

** — The factor is created by determining the estimated penetration of material and surface.

*** — Coverage per gallon is determined by contents of material and surface, that BWE is being applied to.

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HOW TO ESTIMATE CHEMICAL USE

Three simple steps to determine the amount of BWE CHEMICAL to be ordered for your project.

SIMPLY FILL IN THE BOXES. In this example below, the box has been filled in for, using BWE 3000.

Step 1

* Penetration [A] 1/4 — Penetration determines the factor. (See conversion table for BWE 3000 or BWE 5000.)

Factor [B] 4

×

** Coverage Per Gallon [C] 25 — Multiply factor [B] × [C] = Coverage per gallon

=

Coverage Per Square Feet [D] 100 — [D] Coverage per square feet

Step 2

1. How many square feet to cover? [E] 7.500
2. How much penetration required? [A] 1/4
   (Answer to [A] from Step 1)
3. Estimate square foot coverage per gallon? [D] 100
   (Answer to [D] from Step 1)

Step 3

Simply divide [E] by [D] = [F] BWE Chemical needed.

[E] 7500 ÷ [D] 100 = [F] 75.00

[F] or 75 is the Amount of Gallons of BWE 3000 to be ordered in example to complete the project.

* To determine penetration of your surface and material substance, consult Factory Representative.
** To determine Coverage Per Gallon of your surface & material substance, consult Factory Representative.

BWE 5000™

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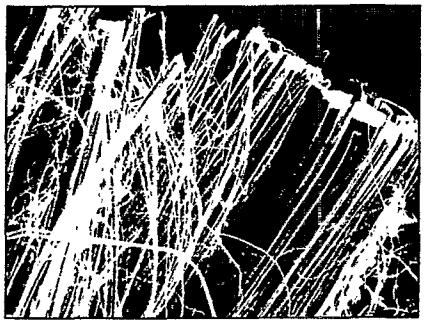
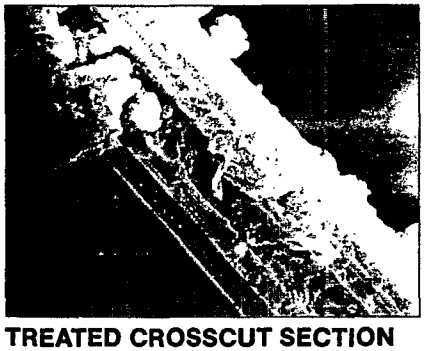
Asbestos Chemical Removal Encapsulant

REMOVING ASBESTOS WITH WETTING AGENTS, SURFACTANTS, AND WATER IS NOT THE ANSWER!



UNTREATED
MAGNIFICATION 100 TIMES

TREATED WITH BWE 5000
MAGNIFICATION 1000 TIMES



TREATED CROSSCUT SECTION
MAGNIFICATION 2000 TIMES

Asbestos has been identified as the "silent killer" of this century.

Many wetting agents and surfactants have been mixed in water and introduced with promises of control of asbestos fiber counts during asbestos removal and of future safety for post-abatement building occupants.

However, there remains a potentially hazardous gap between those promises and actual performance.

Here's what you should know about asbestos removal products. Until recently, the only products used to remove asbestos materials were merely wetting agents. These wetting agents and surfactants, mixed with water, formed "AMENDED WATER". The use of amended water merely increased the wetting capability of the water in an effort to reduce the release of asbestos fibers into the air. This process offers no real protection other than temporarily wetting the asbestos. It may not generate acceptable exposure levels and does nothing to alter the state of friability of the asbestos fibers.

The U.S. Environmental Protection Agency estimated that the use of amended water in asbestos removal has resulted in average airborne asbestos fiber levels far in excess of the current permissible exposure level (PEL) of 2.0 f/cc. "AMENDED WATER" is not the answer to asbestos removal!

THERE IS A PRODUCT THAT FULFILLS YOUR SAFETY NEEDS, ELIMINATES THE HAZARDS OF ASBESTOS REMOVAL AND CREATES A BETTER WORKING ENVIRONMENT!

Recently, a new technology has been introduced that encapsulates asbestos fibers during removal. This technology significantly reduces airborne asbestos fiber counts far below the permissible exposure levels established by OSHA and the EPA during removal and creates a less hazardous environment for the asbestos abatement worker. This technological advancement also creates a safer environment for the post-abatement building occupant, because any residual material will be encapsulated and less harmful. Asbestos that has been removed with "Amended Water" will, when dry, revert to a more friable and extremely hazardous state, often worse than before removal.

Introducing BWE 5000 (patent pending) BWE 5000 is the state-of-the-art in asbestos removal.

BWE 5000 is a ready-to-use (no mixing is necessary) asbestos encapsulant remover that penetrates asbestos-containing materials up to five inches. BWE 5000 significantly reduces asbestos fiber release during and after removal.

BWE 5000 thoroughly penetrates, dissolves the adhesives and binders of the existing matrix, encapsulates the fibers and allows the asbestos to be easily removed.

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BWE 5000™

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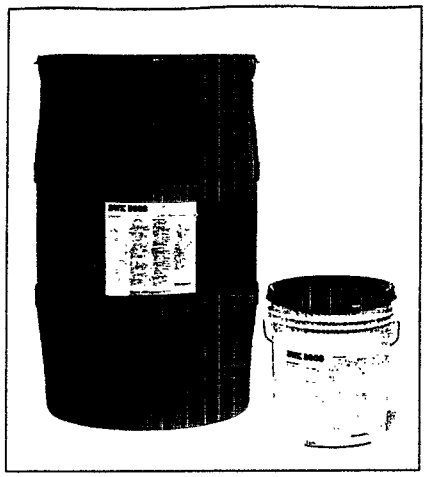
Asbestos Chemical Removal Encapsulant



The benefits of BWE 5000.

- BWE 5000 is ready to use (no mixing is necessary).
- BWE 5000 significantly reduces airborne asbestos fiber generation during and after the removal process.
- BWE 5000 is effective even on amosite and crocidolite.
- BWE 5000 exceeds all current guidelines established by EPA, OSHA AND NESHAPS.
- BWE 5000's unique removing capabilities allow treated asbestos-containing materials to be easily removed, handled and cleaned up. The problem of properly disposing of contaminated material is significantly reduced because fewer gallons of BWE 5000 are necessary to complete the removal.
- BWE 5000 also encapsulates the asbestos fibers during and after the removal process to ensure "clean air" fiber counts and protect the workplace environment after abatement.
- Because asbestos removed with BWE 5000 is encapsulated, the prospect of post-disposal friability (i.e., from a bag puncture or leak) is reduced.
- BWE 5000 can be sprayed with any low-pressure, high-volume sprayer capable of between 35 and 50 psi.
- BWE 5000 can be stored for extended periods of time and, if ever frozen, it can be thawed, stirred and sprayed without any adverse effect on its performance.

BWE BETTER WORKING ENVIRONMENTS, INC.™
3716 Scripps Way
Las Vegas, NV 89103
(702) 871-1301

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Asbestos Chemical Removal Encapsulant

The results of over 30 tests conducted at internationally recognized laboratories.

The following laboratories conducted these tests:
United States Testing Company, Inc.
S.G.S. Control Services, Inc.
Dyer Laboratories
Micrographics, Inc.
EAL Corporation

Better Working Environments (BWE), Inc. would be pleased to send you more information and test results. Address your request to BWE,
3716 Scripps Way
Las Vegas, NV 89103
(702) 871-1301.

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Technical Specifications

Product: BWE 5000

Classification: Asbestos Encapsulant Remover

Test Analysis:

Flame Spread Index	0
Fuel Contribution Index	0
Smoke Development Index	0
Fire Rating (ASTM E84-81a)	Class A

Toxic Gas Release (ASTM E662-79), (MIL-M-14g), (NBS Tech. Note 708, App. II) (Boeing Spec. 7239)

Chlorine (Cl)	ND
Ammonia (NH3)	ND
Phosgene (COCl)	ND
Hydrogen Chloride (HCl)	ND
Hydrogen Cyanide (HCN)	ND
Carbon Monoxide (CO), % by Vol.	0.0059
Oxides of Nitrogen (NOx), ppm	1.7
Hydrogen Fluoride (HF)	ND
Oxides of Sulfur (SOx)	ND
Formaldehyde (HCHO)	ND

ND — None Detected.

Corrosiveness (HUD/FHA UM-80, para 9.6)	None
Odor Emission (HUD/FHA UM-80, para 9.11)	None
Color (ASTM D1500)	Colorless
Weight per Gallon (ASTM D1298)	10.42 lbs.
Viscosity, cps (ASTM D445)	389
Specific Gravity	1.25
Total Solids (Gravimetric)	29.50%
Solvents (Gas Chromotography)	Water
Eye Irritation (16 CFR, Ch. II, Part 1500.42)	Irritant (See MSDS)
Skin Irritation (16 CFR, Ch. IIc, Part 1500.41)	Non-Irritant
D.O.T. Skin Corrosion (49 CFR, Part 173.240)	Non-Corrosive
PH	11.3
Flash Point	None
Boiling Point	212 degrees F.
Freezing Point	30 degrees F.
Shelf Life	Indefinite
Penetration	Up to five inches
Coverage	15 to 50 board feet per gallon
Equipment Pressure	35 to 50 psi

Uses:
Walls and ceilings, insulated pipes and boilers, heat exchangers and flues, reactors, turbines, insulated machinery, furnaces and ducts, air plenums, steel columns and beams, wood, brick, and any other surface that is covered or coated with asbestos-containing material.

Surface Preparation:
Surfaces must be clean and free of grease and paint.

Coverage:
BWE 5000 is ready to use and will cover from 15 to 50 board feet per gallon, depending upon the density, depth and composition of the material that is being removed.

Application Procedure:
Spray BWE 5000 with a low-pressure, airless sprayer utilizing 35 to 50 psi onto the asbestos-containing material until it is totally saturated and starts to drip. BWE 5000 thoroughly penetrates, encapsulates fibers, and causes the encapsulated material to be easily removed, enabling easier handling and clean up. Always use BWE 5000 full-strength. DO NOT DILUTE. The addition of water will change the physical characteristics of BWE 5000 and alter the product's performance.

Acoustical Plaster:
Apply one or more coats of BWE 5000 directly onto the ACM* and begin to remove within one to five minutes. With BWE 5000, there is no need to wait for the surface tension to break down, as with amended water, because BWE 5000 penetrates immediately upon contact. The longer you allow BWE 5000 to remain in the asbestos material, the further it will penetrate, causing the material to become more difficult to remove.[1,2]

BWE 5000 will penetrate through the ACM into the brown and scratch coats and will harden if not removed in the recommended amount of time. Should BWE 5000 be allowed to dry, simply apply another coat of BWE 5000 to

BWE 5000™

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Asbestos Chemical Removal Encapsulant

soften the treated material for removal. Always remove everything that has been treated with BWE 5000 before it is allowed to dry.(1,2)

Fireproofing (Spongy/Cotton Candy):

Apply one or more coats of BWE 5000 until the ACM is thoroughly saturated without causing excess dripping. BWE 5000 will penetrate up to five inches and will cover from 15 to 50 board feet per gallon. Start to remove the treated ACM within 10 to 30 minutes of application. If in doubt as to the penetration of BWE 5000, take a plug sample and re-apply if necessary until the desired penetration is achieved. BWE 5000 is the most effective product for amosite removal.(1,2,3)

Fireproofing (Vermiculite/Clay Perlite/Mica Cementitious):

Apply BWE 5000 until the ACM is thoroughly wet. Scrap in layers, depending on the penetration of the product. Because of the density of these materials, BWE 5000 may only penetrate one-quarter inch to three-quarters of an inch per coat. These figures may vary. In any case, BWE 5000 will do the job faster and better than any other product on the market.(1,2,3)

Lagging Pipe/Boiler, Cold Water/Isolated):

First, apply BWE 5000 to the lagging cover, prior to cutting and stripping. Second, apply BWE 5000 as you make your first incision in the lagging cover. Apply BWE 5000 onto the lagging cover continually thereafter until the lagging cover has been completely removed. Third, with the lagging now completely exposed, apply ordinary water to the lagging until it is thoroughly saturated. Fourth, apply BWE 5000 and start removing the pipe/boiler lagging from five to thirty minutes after application. This process of applying water first and then BWE 5000 greatly enhances the penetration of BWE 5000, makes the lagging easier to remove and significantly reduces the release of asbestos fibers into the air.(1,2)

Lagging (Hot Water/Steam):

BWE, Inc. does not recommend the use of BWE 5000 on operational pipes and boiler lagging, in order to avoid the burns and scalding that are common when working with and around live hot water, steam pipes and boilers. BWE, Inc. suggests that the proper procedure would be to require the building owner to shut down and isolate the areas in which you are working.(1,2)

Painted Surfaces (Encapsulated):

Repeat process for Acoustical Plasters & Fireproofing materials. During the application process, make incisions in the painted/encapsulated surface to enhance the penetration of BWE 5000 through the ACM to the substrate.

Final Clean:

Spray BWE 5000 onto all structural steel, ceilings, walls, pipes and boilers and wipe down with brushes and rags until you have achieved the degree of cleanliness that is required in the specifications for "clean air."

Spray Back:

Lightly spray BWE 3000 — Asbestos Penetrating Encapsulant onto all structural steel, ceilings, walls, pipes, boilers, air plenums and concrete block after the removal of asbestos has been completed. DO NOT apply more than one coat of BWE 3000 during this process. BWE 3000 will encapsulate any materials left behind.(1,2)

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BWE 5000™

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Asbestos Chemical Removal Encapsulant

Clean Up:

Use water to clean up all oversprayed materials prior to drying. If BWE 5000 has been allowed to dry, simply use BWE 5000 to wipe down the area and remove the hardened BWE 5000. Then clean up, using hot tap water to remove any remaining solution and allow to dry. Clean all tools and your spray equipment with water prior to leaving the job site for the day.

Removal and Disposal:

BWE 5000 treated material can be easily removed within one to thirty minutes after application.

BWE, Inc. recommends that all treated material be removed as soon as possible after application. BWE 5000 will be dry to the touch in 24 hours.

Remove and dispose of all asbestos-containing materials, asbestos fiber and construction materials in accordance with Title 40, Part 61.25 (Waste Disposal Sites) of the Code of Federal Regulations "National Emission Standard for Asbestos."

Packaging and Storage:

BWE 5000 is packaged in heavy-duty 55-gallon black plastic drums.

If BWE 5000 is frozen, simply thaw at room temperature and stir well.

* ACM — Asbestos Containing Material

(1) BWE 5000 will penetrate up to five (5) inches, depending upon the type and density of the ACM that is being treated.

(2) Apply BWE 5000 repeatedly during the work process to maintain a wet condition without excessive dripping to minimize fiber release. Do not allow BWE 5000 to dry out or harden during the removal process.

(3) Once the BWE 5000 treated material has been removed, the remaining materials/fibers, if any, can be encapsulated by applying a very light coat of the BWE 5000 onto the surface and allowing to dry.

Work Place Preparations:

Refer to U.S. EPA "Asbestos-Containing Materials in School Buildings," June 1984, Chapter 9, pages 20 to 25, and U.S. EPA "Guidance for Controlling Asbestos-Containing Materials in Buildings," June 1985, Chapter 5, pages 5 to 8.

Respiratory Equipment:

EPA, NIOSH and OSHA regulations for the training, use and maintenance of respiratory equipment are listed below for your reference.

Description	Code
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"Occupational Foot Protection"	29 CFR 1910.136
"Sources of Standards"	29 CFR 1910.139
"Guidelines for Controlling Friable Asbestos-Containing Materials in Buildings"	EPA 560/5-85-024

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BWE 5000™

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Asbestos Chemical Removal Encapsulant

BWE, Inc. recommends the use of either a full-face respirator or a half-face respirator with safety goggles or a splash shield when applying BWE 5000.

Additional Reference Material:

Description	Code
"No Visual Emissions"	38 FR 8826
"National Emissions Standards for Hazardous Air Pollutants" (NESHAPS)	40 CFR, Part 61, Section A & B
"Ban on Molded or Wet Applied Insulation"	40 FR 48292
"Ban on Spraying Asbestos-Containing Material"	43 FR 26372
"U.S. Department of Education Asbestos Scoring System"	46 FR 4536
"Work Place Standards Involving Airborne Asbestos Exposure"	47 FR 1807
"Asbestos in Schools Rule"	47 FR 23360
"Evaluation of the Asbestos-In-Schools Identification and Notification Rule"	EPA 560/5-84-005
"Asbestos in Buildings"	EPA 560/5-84-006
"American National Standard Practices for Respiratory Protection"	ANSI Z88.2-1969

Professional and Technical Services:

Services are available on request. Technical questions can be answered by calling (702) 871-1301.

Precautions:

Keep BWE 5000 and all chemicals out of the reach of children.

Irritation may occur if protective clothing and equipment are not worn, or if worn improperly.

BWE 5000 is just as slippery as water.

BWE 5000 may become sharp or abrasive when dry, depending on the surface of the material to which it is applied.

Do not take internally.

If sprayed into eyes, flush with water. (Consult Material Safety Data Sheet.)

DO NOT DILUTE.

Do not mix with other types of chemicals.

Close container after each use.

Clean up with water prior to drying.

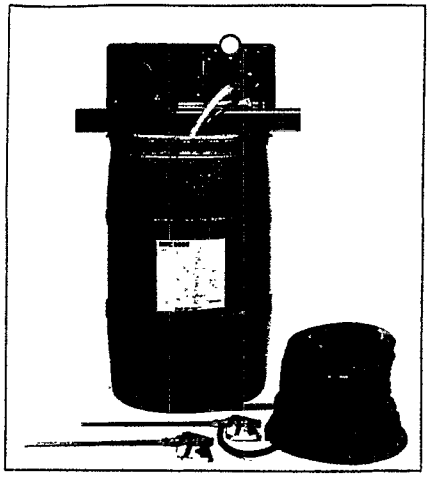
Read all instructions and directions before using BWE 5000.

PRODUCT WARRANTY

BETTER WORKING ENVIRONMENTS, INC. guarantees their products for the purposes for which they are intended. Since the use of, and the application of Better Working Environments' products is beyond our control, we agree only to replace or refund the purchase price of any Better Working Environments' products found by our laboratory to be defective. However, we assume no responsibility or liability beyond the purchase price of our products.

No agent, employee, distributor or other representative of Better Working Environments, Inc. has the authority to change or extend this condition of sale. Therefore, there are no other warranties, either express or implied, which extend beyond that set forth above.

BWE BETTER WORKING ENVIRONMENTS, INC.™
3716 Scripps Way
Las Vegas, NV 89103
(702) 871-1301



1A 187737

BWE 5000™ Asbestos Chemical Removal Encapsulant

Patent Pending

ESTIMATED COST COMPARISON EPA MODEL OFFICE BUILDING*

(Sprayed on ACM ½" thick — 4,680 sq. ft.)

	Column A* EPA — Amended Water	**Column B BWE 5000 (a) (Worst Coverage)**
Move equipment to site	$ 216.00	**$ 216.00**
Asbestos removal and bagging (labor only)	3,603.60	**3,243.24 (b)**
Wetting agent/BWE 5000	30.00	**331.50**
Disposal Bags (496/34)	223.20	**15.30 (c)**
Respirators — replacement filters	180.14	**162.13 (d)**
Protective clothing	347.80	**313.02 (d)**
Caution signs	28.00	**28.00**
Monitoring		
sample collection	550.00	**495.00 (d)**
work area (PCM)	250.00	**225.00 (d)**
Miscellaneous supplies	440.86	**440.86**
Additional supplies	— 0 —	**83.70 (e)**
Waste disposal	1,171.26	**1,054.13 (f)**
Install barriers		
labor	159.16	**159.16**
polyethylene sheeting	17.80	**17.80**
Post cleaning		
first wet clean	34.92	**34.92**
second wet clean	17.46	**17.46**
Material replacement	5,803.20	**5,803.20**
Clean and decommission	1,336.00	**1,336.00**
Overhead	2,700.64	**2,606.12 (g)**
Administrative cost	337.74	**331.65 (h)**
Contingency	1,722.46	**1,691.42 (h)**
Contractor fee	2,842.05	**2,789.77 (h)**
Taxes, license, permits, bonds	217.89	**185.26 (h)**
Total operating cost	$22,230.18	**$21,580.64**
Estimated savings resulting from the use of BWE 5000		**$ 649.54**

* "ASBESTOS ABATEMENT RULES: A PRELIMINARY COST-EFFECTIVE ANALYSIS REVISED DRAFT REPORT, MAY, 1985, PAGE B-9, TABLE B-6. OPERATING COSTS UNDER WORKER PROTECTION RULE."

(a) Assume 30 sq. ft. ACM removed per gallon BWE 5000.

(b) Assume minimum of 10% overall labor cost saving, due to the use of BWE 5000 in removal, and due to saving in bagging cost (34 bags attributable to BWE 5000 vs. 496 bags for amended water).

(c) Bags necessary for disposal of amended water or BWE 5000 (does not include bags necessary for disposal of ACM). Assuming 50 pounds per bag, 1,380 gallons (12,420 pounds) of water, 78 gallons (815 pounds) BWE 5000, double-bagging, $0.45 per bag.

(d) Assume minimum of 10% savings, due to more rapid completion of job.

(e) Safety glasses or splash shield ($6.80 per pair), if full-face respirators are not provided, and gloves ($1.57 per pair).

(f) Assume minimum 10% cost reduction, due to use of fewer bags and lower weight.

(g) Savings based upon EPA assumption of overhead rate at 35% of salaries; 10% salary reduction using BWE 5000.

(h) Reductions due to operating cost saving already noted.

1A 187738

BWE 5000™

Patent Pending

Asbestos Chemical Removal Encapsulant

ASBESTOS ENCAPSULANT REMOVAL CONVERSION TABLE

BOARD FEET TO SQUARE FEET

PENETRATION*	FACTOR**	COVERAGE PER GAL 25 BD/FT GAL***	COVERAGE PER GAL 50 BD/FT GAL***
1/4″	4	60 SQ/FT	200 SQ/FT
1/2″	2	30 SQ/FT	100 SQ/FT
1″	1	15 SQ/FT	50 SQ/FT
2″	1/2	7.5 SQ/FT	25 SQ/FT
3″	1/4	3.8 SQ/FT	12.5 SQ/FT
4″	1/8	1.9 SQ/FT	6.25 SQ/FT
5″	1/16	.95 SQ/FT	3.13 SQ/FT

* — Penetration is determined by contents of material and surface, that BWE is being applied to.

** — The factor is created by determining the estimated penetration of material and surface.

*** — Coverage per gallon is determined by contents of material and surface, that BWE is being applied to.

Battelle
Columbus Division
505 King Avenue
Columbus, Ohio 43201
Telephone (614) 424-6424
Telex 24-5454

February 12, 1986

Mr. John Tullis
Better Working Environment, Inc.
3716 Scripps Way
Las Vegas, Nevada 89103

Dear Mr. Tullis:

Enclosed please find our Final Report on your project to evaluate the effectiveness of your BWE 3000 penetrating encapsulant. The data and results from these evaluations show that the encapsulant meets or exceeds the established minimum requirements for an acceptable penetrating encapsulant.

It has been a pleasure working with you on this program. If I can be of any further service, please contact me.

Very truly yours,

William Mirick
Polymer Science and
Technology Section

WM:gm

Enc.

FINAL REPORT

on

ENCAPSULANT EVALUATION

to

BETTER WORKING ENVIRONMENT

from

BATTELLE
Columbus Division

February 12, 1986

INTRODUCTION

Better Working Environment, Inc. (BWE) has developed an asbestos penetrating encapsulant, "BWE 3000". This product was submitted to Battelle for evaluation. The evaluation was conducted using procedures developed during the U.S. Environmental Protection Agency project entitled "Evaluation of Encapsulants for Sprayed-on Asbestos-Containing Materials in Buildings".

RESEARCH APPROACH

The following sections discuss the matrix preparation and the procedures used to evaluate the encapsulant.

Matrix Preparation

The mineral wool test matrix used during this program was similar to the test matrix used during the EPA program. The 4 x 4-foot panel was mounted in such a manner that the mineral wool faced downward to simulate a ceiling. The BWE 3000 was applied using spray equipment supplied by BWE. The encapsulant was sprayed using a pump pressure of 35 psi and nozzle

designated 65-2. Three gallons of the encapsulant was applied to the 16-square foot by 2-inch-thick test matrix. This gave a coating rate of 0.89 cubic feet per gallon (16 square feet x 1/6 foot thick = 2.67 cubic feet - 2.67 cubic feet/by 3 gallons = 0.89 cubic feet per gallon).

Initial weight of the test panel and matrix was 75.23 pounds. The density of the mineral wool was 19 pounds per square foot. The final weight of panel, matrix and encapsulant after drying for 7 days was 89.74 pounds. The weight gain due to the encapsulant was 14.51 pounds.

Based on weight per gallon measurements (10.4 pounds per gallon) and percent solids (30 percent solids) made at Battelle, this additional weight would equal 3.19 gallons of encapsulant (calculations: 30 percent unknown x 70 percent water (8.34 pounds per gallon) = 10.4 pounds per gallon). This weight gain measurement agrees with the observed usage of encapsulant. This application rate results in 0.91 pounds of encapsulant per square foot of surface area at 1-1/2 inches penetration.

Core Analysis

Core sample analysis consists of taking four cores from the encapsulated mineral wool immediately after spraying for the wet penetration specimens and also after 4 and 24 hours for the cured specimens. The cured core specimens are allowed to soak in water for 4 hours. After being soaked, the core is removed and the depth of penetration determined by measuring the length of the core that is still intact.

Penetration depths of 0.5 inch is considered acceptable for penetrating encapsulants.

Cohesive/Adhesive Strength

The cohesive/adhesive strength was measured using the method described in the "Inspection Procedure for Field Applied Fire Protection Materials" brochure from the Sprayed Mineral Fiber Manufacturers Association (SMFMA). For this procedure, a metal bottle cap, 3-1/4 inches in diameter and approximately 1/2 inch deep with a nail hook attached at the center of the cap was filled with a two-component urethane adhesive foam. The foam-filled cap was placed against the encapsulated matrix.

After the foam cured, a series of weight were carefully suspended from the hook. The untreated matrix material must support a 2-pound weight for 1 minute in order to meet SMFMA requirements. Separation of the encapsulant from the matrix at loads less than 100 percent of the cohesive strength of the uncoated matrix is judged a "failure".

Impact Strength

These evaluations involve direct impact measurements on the face of the encapsulated test matrix. For comparison purposes, the impact strength was determined on both the untreated and encapsulated test matrix. The amount of force in inch/pounds required to penetrate 1/2 inch into the matrix was measured using a modified Gardner impact tester. Impact strength of an encapsulant is considered acceptable if it increases the impact resistance of the untreated matrix by 50 percent or greater.

Smoke Generation

Smoke generation, resulting from the combustion of the encapsulated matrix, was determined by measuring the percent of light transmitted between a light source and a photoelectric cell. When smoke is generated in the test chamber, a change

in the percentage of light transmission can be measured. Any encapsulant that generates 50 percent or greater smoke density is considered unacceptable.

Toxic Gas Release

Toxic gas release was determined by drawing samples of the smoke generated in the smoke density chamber through colorimetric gas detector tubes. Any encapsulant exceeding the levels given by the National Academy of Science are considered as unsatisfactory. The gasses analyzed and danger levels given by the National Academy are listed below.

(1) CO = 0.1 - 0.2 percent
(2) NO = 100 - 200 ppm
(3) HCl = 1000 - 2000 ppm
(4) HCN = 100 - 200 ppm

Fire Resistance

To qualify as an acceptable encapsulant, the fire resistance rating of Class "A" (0 to 25 flame spread index) must be achieved.

Wetting of Asbestos Fibers

Analysis of the effectiveness of the encapsulant to wet actual asbestos fibers (Chrysotile and Amosite) was determined by microscopic examination. The procedure was to place a bundle of asbestos fibers on a glass slide and then wet with a drop of the encapsulant. Although there is no specific failure associated with lack of fiber wetting, it has been observed that long-term durability of the system is reduced.

Surface Dusting

No standard test is available for surface dusting. However, if any dusting is observed, it could result in the release of fibers which is contrary to the purpose of the encapsulant.

RESULTS

The results of each test procedure is discussed below.

Core Analysis

The results of the core analysis showed that the encapsulant, "BWE 3000", had wet penetration to the substrate (average matrix thickness was 2 inches). After drying and soaking in water for 4 and 24 hours, the length of the intact core was approximately 1.5 inches.

Cohesive/Adhesive Strength

The cohesive/adhesive strength of the untreated test matrix was measured at 39 pounds per square foot. The encapsulated matrix was determined to have cohesive/adhesive strength in excess of 53 pounds per square foot.

Impact Strength

The inch-pounds of force required to penetrate 1/2 inch into the test matrix and the encapsulated matrix is given in the tabulation below. The results of this evaluation showed that the encapsulated matrix exhibited impact strength 2.46 times greater than the uncoated matrix.

Impact Resistance Measurements
inch-pounds force

Sample	1	2	3	4	5	6	Avg
Test Matrix	16	18	16	16	18	16	16.7
BWE 3000	40	38	44	46	38	40	41.0

Smoke Generation

The BWE 3000 penetration encapsulant exhibited very low smoke generation during the evaluation. The maximum amount of smoke (1 percent) was observed after 7 minutes of burning. The following listing gives the results of a 10-minute evaluation in the smoke chamber during a flame-mode evaluation. The encapsulant did not generate any visible smoke in the glow-wire mode.

Smoke Generation-Flame Mode

Time, min	% Smoke	Flame Temperature, F
0	0	1590
1	0	1646
2	0	1660
3	0	1668
4	0	1681
5	0	1683
6	0	1686
7	1	1704
8	1	1683
9	1	1705
10	1	1710

Toxic Gas Release

The amount of toxic gas released during the smoke test evaluation was measured as given in the tabulation below.

(1)	CO	<0.1	percent
(2)	NO	30	ppm
(3)	HCl	200	ppm
(4)	HCN	35	ppm

1A 187746

Fire Resistance

The flame spread rate of BWE-3000 was determined to be 1.1, giving this encapsulant a Class "A" rating. The heat evolved in Btu/minute ft^2 equals 2.3. This is very low heat evolution for an encapsulant.

Wetting of Asbestos Fibers

The photomicrographs in Figures 1 and 2 shows that the BWE-3000 encapsulant wets both types of asbestos fibers. During the impact testing some surface dusting was observed in the area of the impact. Figures 3, 4, and 5 show that the fibers that were released during impact were completely encapsulated. The conclusions reached from observing these photomicrographs was that the particles released during impact would not float in the air but drop directly to the floor.

Viscosity

The viscosity of the encapsulant was 15 centipoise. The measurement was determined using an RVT Brookfield Viscometer at 20 rpm and 25 degrees C.

CONCLUSIONS

The results of the evaluation of BWE 3000 show it to be an acceptable material for the encapsulation of friable materials containing asbestos.

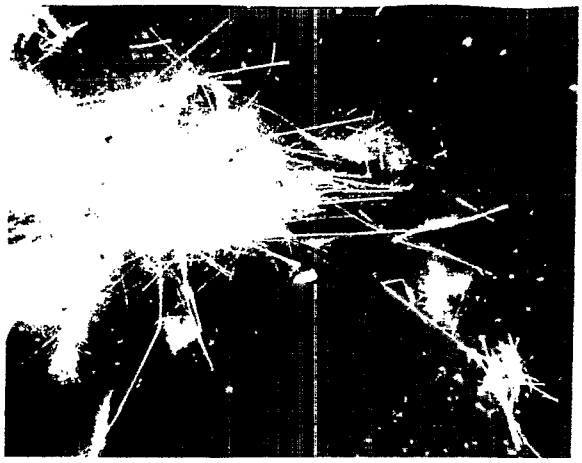


FIGURE 1. AMOSITE 14X

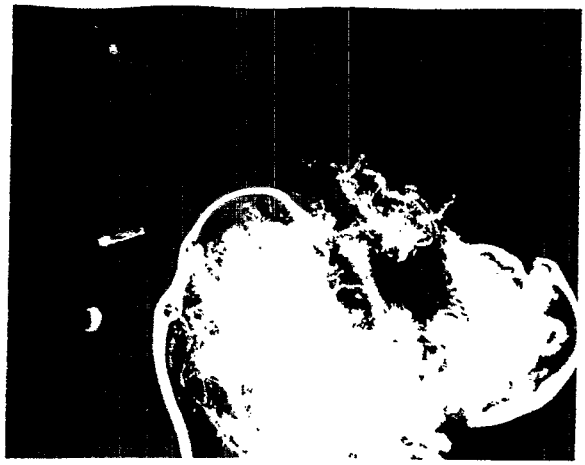


FIGURE 2. CHRYSOTILE 14X

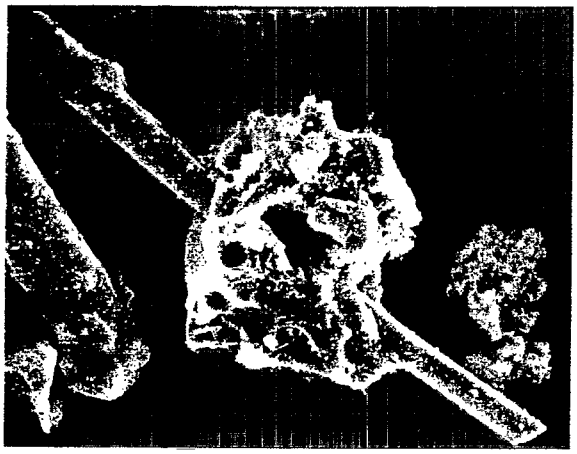


FIGURE 3. BWE 3000 1000X

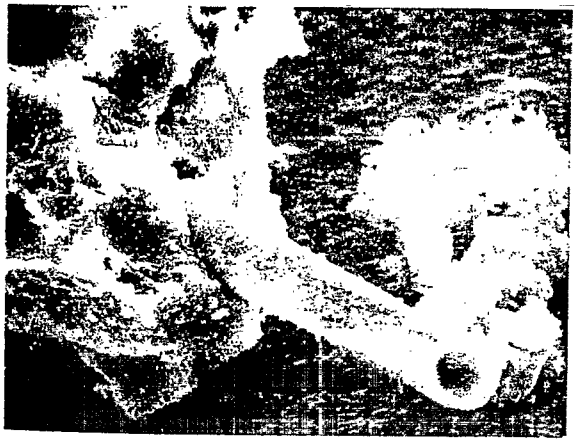


FIGURE 4. BWE 3000 2000X

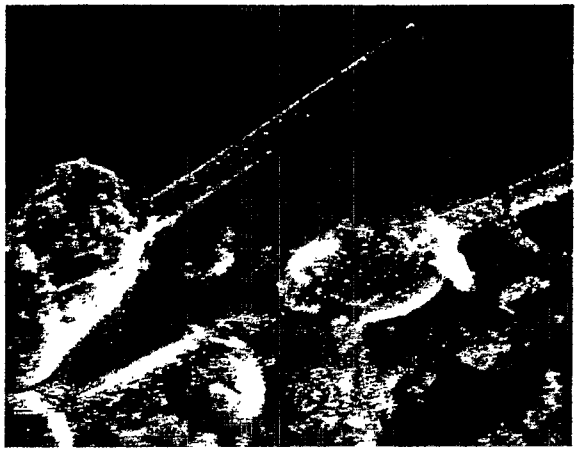


FIGURE 5. BWE 3000 2000X

UNITED STATES TESTING COMPANY, INC. CONDUCTED THE FOLLOWING TEST FOR BETTER WORKING ENVIRONMENTS, INC.

Product Id: Asbestos Encapsulant and Encapsulant Remover

Tests Conducted: SMOKE GENERATING CHARACTERISTICS

Report No.: LA 41611

Date: October 19, 1984

Test Methods: ASTM E-662, "Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials."

Test Analysis: **Smoke Generation Characteristics of Encapsulant and Remover**

ASTM E-662 - **Non-Flaming and Flaming Exposure**

Test Specimen	Max. Dm.	Max. Dm. Corr.
1	0	0
2	0	0
3	0	0

Average Maximum Specific Optical Density: 0
Average Maximum Corrected Specific Optical Density: 0

CONCLUSION: BWE 3000 and BWE 5000 produced zero (0) smoke generation during this test.

Copies of original test reports can be obtained by contacting a BWE Factory Representative at (702) 871-1301.

UNITED STATES TESTING COMPANY, INC. CONDUCTED THE FOLLOWING TEST FOR BETTER WORKING ENVIRONMENTS, INC.

Product Id: Asbestos Encapsulant and Asbestos Remover

Tests Conducted: TOXIC GAS ANALYSIS

Report No.: LA 41611

Date: October 19, 1984

Test Methods: Toxic Gas Analysis per "Boeing Specification Support Standard 7239 for Toxic Gas Generation by Materials of Combustion."

Test Analysis: **Toxic Gas Analysis of Encapsulant and Remover**

Toxic Gas	Non-Flaming	Flaming	Non-Flaming	Flaming
CO, % by Vol.	ND	0.0059	tr. 0.0005	0.0059
HF, ppm	ND	ND	ND	ND
HCl, ppm	ND	ND	tr.	ND
NOx, ppm	tr.	3.8	tr.	1.7
SOx, ppm	ND	ND	ND	ND
HCN, ppm	ND	ND	ND	ND
HCHO, ppm	ND	ND	ND	ND
NH3, ppm	ND	ND	tr. 5	ND
Phosgene, ppm	ND	ND	ND	ND

ND - None Detected
tr. - Trace

CONCLUSION: BWE 3000 and BWE 5000 produced very low levels of both Carbon Monoxide (CO) and the Oxides of Nitrogen (NOx). The other gases were determined to be None Detected (ND) in the Flaming Mode and None Detected (ND) or Trace (tr.) in the Non-Flaming Mode.

Copies of original test reports can be obtained by contacting a BWE Factory Representative at (702) 871-1301.

1A 187750

UNITED STATES TESTING COMPANY, INC. CONDUCTED THE FOLLOWING TEST FOR BETTER WORKING ENVIRONMENTS, INC.

Product Id: Asbestos Encapsulant

Test Conducted: FLAME SPREAD CLASSIFICATION AND SMOKE DENSITY DEVELOPMENT

Report No.: LA 41611-2

Date: January 14, 1985

Test Method: ASTM E84-81a, "Standard Method of Test for Surface Burning Characteristics of Building Materials."

Test Data:

Flame Spread	NFPA Class	UBC Class	Smoke Density
0	A	I	0

Ignition: Did Not Ignite

Flame Front: 0 Ft. Max. Time to Max. Spread: 0

Calculation: 0 Test Duration: 10 Minutes

SUMMARY

FLAME SPREADY BY:	ASTM E84-81a	0
SMOKE DENSITY		0

OBSERVATIONS

The sample material did not ignite during the ten minute test period. Very slight surface bubbling noted in the area of direct flame impingement.

CONCLUSION: BWE 3000 as evidenced by the Flame Spread of 0 and the Smoke Density of 0 is designated as Class A Fire Rated by the National Fire Protection Association (NFPA), and Class I Fire Rated by the Uniform Building Code (UBC).

Copies of original test reports can be obtained by contacting a BWE Factory Representative at (702) 871-1301.

1A 187751

UNITED STATES TESTING COMPANY, INC. CONDUCTED THE FOLLOWING TEST FOR BETTER WORKING ENVIRONMENTS, INC.

Product Id: Asbestos Remover

Test Conducted: FLAME SPREAD CLASSIFICATION AND SMOKE DENSITY DEVELOPMENT

Report No.: LA 41611-3

Date: January 14, 1985

Test Method: ASTM E84-81a, "Standard Method of Test for Surface Burning Characteristics of Building Materials."

Test Data:

Flame Spread	NFPA Class	UBC Class	Smoke Density
0	A	I	0

Ignition: Did Not Ignite

Flame Front: 0 Ft. Max. Time to Max. Spread: 0

Calculation: 0 Test Duration: 10 Minutes

SUMMARY

FLAME SPREAD BY:	ASTM E84-81a	0
SMOKE DENSITY		0

OBSERVATIONS

The sample material did not ignite during the ten minute test period.

CONCLUSION: BWE 5000 as evidenced by the Flame Spread of 0 and the Smoke Density of 0 is designated as Class A Fire Rated by the National Fire Protection Association (NFPA), and Class I Fire Rated by the Uniform Building Code (UBC).

Copies of original test reports can be obtained by contacting a BWE Factory Representative at (702) 871-1301.

1A 187752

UNITED STATES TESTING COMPANY, INC. CONDUCTED THE FOLLOWING TEST FOR BETTER WORKING ENVIRONMENTS, INC.

Product Id: Asbestos Encapsulant and Asbestos Remover

Tests Conducted: Moisture Absorption, Corrosiveness to Steel, Copper and Aluminum, Fungus Growth, Odor, Delamination in High Humidity Cycles, Impact Resistance, Bond/Adhesion Strength, Abrasion Resistance, and Pencil and Shore Durometer Hardness.

Report No.: LA 41714

Date: November 19, 1984

Test Methods: Fed. Specs. HH-I-515D, FHA-UM80, MIL-STD.-810C, ASTM B152, ASTM D2794, ASTM D3359, FTMS No. 141 Method 6192, ASTM D3363 and ASTM D2240.

CONCLUSION:

The Encapsulant conforms to the physical and chemical standards of HH-I-515D for moisture absorption, corrosivity to steel, copper and aluminum, fungus growth and odor. The Remover meets the HH-I-515D requirements for corrosivity and odor.

The Encapsulant also appears to impede the loss of asbestos from asbestos surfaces by making the asbestos surface more impact resistant, harder, and more resistive to abrasion.

Copies of original test reports can be obtained by contacting a BWE Factory Representative at (702) 871-1301.

1A 187753

UNITED STATES TESTING COMPANY, INC. CONDUCTED THE FOLLOWING TEST FOR BETTER WORKING ENVIRONMENTS, INC.

Product Id: BWE 3000 - Asbestos Penetrating Encapsulant

Tests Conducted: Eye Irritation, Primary Skin Irritation and Skin Corrosion (D.O.T.)

Report No.: 05853-1

Date: January 30, 1986

Test Methods: 16 CFR, Ch. II, Pt. 1500.42; 16 CFR, Ch. IIc, Pt. 1500.41; and 49 CFR, Pt. 173.240.

SUMMARY:

This series of safety tests was performed to evaluate any hazards associated with acute exposure to BWE 3000, an asbestos penetrating encapsulant solution. The results demonstrated that the sample tested as a neat solution was not corrosive to the skin following a 4-hr. exposure period, and was not considered to be a primary skin irritant following a 24-hr. contact exposure period. BWE 3000 was considered to be an eye irritant. However, the chemical insult observed appeared to be reversible as all treated animals' eyes appeared normal at 72-hr. following instillation of the test sample.

CONCLUSION: BWE 3000 is not corrosive to the skin and does not cause burns. BWE 3000 is not a primary skin irritant. BWE 3000 is an eye irritant and proper eye protection, i.e., a full-face respirator or a splash shield or goggles should be worn at all times when applying or using this product.

Copies of original test reports can be obtained by contacting a BWE Factory Representative at (702) 871-1301.

1A 187754

UNITED STATES TESTING COMPANY, INC. CONDUCTED THE FOLLOWING TEST FOR BETTER WORKING ENVIRONMENTS, INC.

Product Id: BWE 5000 - Asbestos Chemical Removal Encapsulant

Tests Conducted: Eye Irritation, Primary Skin Irritation and Skin Corrosion (D.O.T.)

Report No.: 05849-1

Date: January 30, 1986

Test Methods: 16 CFR, Ch. II, Pt. 1500.42; 16 CFR, Ch. IIc, Pt. 1500.41; and 49 CFR, Pt. 173.240.

SUMMARY:

This series of safety tests was performed to evaluate any hazards associated with acute exposure to BWE 5000, an asbestos chemical removal encapsulant solution. The results demonstrated that the sample tested as a neat solution was not corrosive to the skin following a 4-hr. exposure period, and was not considered to be a primary skin irritant following a 24-hr. contact exposure period. BWE 5000 was considered to be an eye irritant.

CONCLUSION:

BWE 5000 is not corrosive to the skin and does not cause burns. BWE 5000 is not a primary skin irritant. BWE 5000 is an eye irritant and proper eye protection, i.e., a full-face respirator or a splash shield or goggles should be worn at all times when applying or using this product.

Copies of original test reports can be obtained by contacting a BWE Factory Representative at (702) 871-1301.

1A 187755

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE ENGINEERING AND SERVICES CENTER
TYNDALL AIR FORCE BASE, FL 32403

18 NOV 1985

Mr C. Michael Deese
Webster, Chamberlain & Bean
1747 Pennsylvania Avenue, NW
Washington DC 20006

Dear Mr Deese

The information which you sent to Lt Col Shockley has been transferred to the Air Force Engineering and Services Center (AFESC). We are the focal point for the Air Force asbestos abatement program affecting facilities and related systems.

On the basis of the test results and other information we have reviewed, Better Working Environments, Inc products (BWE 3000 and BWE 5000) appear to be acceptable for Air Force use and we see no need for further testing. We have requested an evaluation from Eielson AFB and will make this information available to all major commands.

The Air Force is concerned about the hazards of asbestos and we are taking action to identify asbestos-containing material and evaluate the potential hazards to our personnel. Abatement actions, where required will be aggressively programmmed and we are interested in information on products which will expedite this program.

Our point of contact is Mr Robert H. Marcy, HQ AFESC/DEMM, Tyndall AFB FL 32403-6001, telephone (904) 283-6354.

Sincerely

JAMES R. WADE, Colonel, USAF
Director, Operations and
Maintenance

cc: Mr Tullis
Better Working Environments

1A 187756

OFFICE OF THE

CALIFORNIA
STATE FIRE MARSHAL

LISTING EXPIRES:
June 30
1986

M14560

Listing No. 2260-1047:100

COATING MATERIALS

LISTEE---Better Working Environments, Inc., 3716 Scripps Way, Las Vegas, NV 89103.

DESIGN---Model BWE 3000 Asbestos Penetrating Encapsulant, liquid chemical.

APPLICATION---Intended for use as a protective coating over asbestos wall and ceiling finishes.

Classification--- Flame spread - 0
Smoke Density - 0

INSTALLATION---In accordance with listee's printed instructions and applicable codes and ordinances.

MARKING---Listee's name, product label and SFM label.

APPROVAL---approval limited to wall and ceiling finish flamespread and smoke characteristic classification only. Other properties not evaluated.

This will certify that the above complies with the provisions of Title 19, California Administrative Code in effect on the date of issuance.

STATE FIRE MARSHAL

1A 187757

Date Issued: 8/28/85 By:

16

OFFICE OF THE

CALIFORNIA

STATE FIRE MARSHAL

LISTING EXPIRES:
June 30
1986

M14561

Listing No. 2260-1047:101

COATING MATERIALS

LISTEE---Better Working Environments, Inc., 3716 Scripps Way, Las Vegas, NV 89103.

DESIGN---Model BWE 5000 Asbestos Remover, liquid chemical.

APPLICATION---Intended for use as a non-flammable liquid chemical remover for asbestos wall and ceiling finishes.

Classification--- Flame spread - 0
Smoke Density - 0

INSTALLATION---In accordance with listee's printed instructions and applicable codes and ordinances.

MARKING---Listee's name, product label and SFM label.

APPROVAL---approval limited to wall and ceiling finish flamespread and smoke characteristic classification only. Other properties not evaluated.

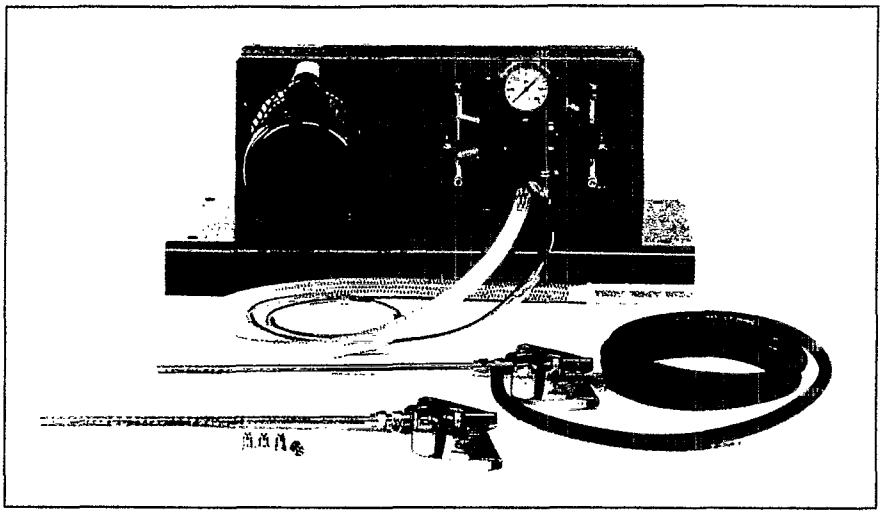
This will certify that the above complies with the provisions of Title 19, California Administrative Code in effect on the date of issuance.

STATE FIRE MARSHAL 1A 187758

Date Issued: 8/28/85 By: _____

BWE™ Best Low Pressure Spray Equipment

BWE P25
LOW PRESSURE AIRLESS SPRAY EQUIPMENT IS SIMPLE AND EASY TO USE



JUST TAKE THE BWE P25 OUT OF ITS CRATE, PLACE ON A DRUM OF EITHER BWE 3000 OR BWE 5000, DROP THE HOSES INTO THE DRUM HOLES, PLUG INTO A 110/115V POWER SOURCE AND SPRAY. THAT'S ALL THERE IS TO IT!

EACH BWE P25 INCLUDES:

1	— BWE P25 DIAGRAM PUMP	4	— SPRAY TIPS
1	— 1 HP MOTOR	2	— SPRAY GUNS
1	— HEAVY STEEL BASE	1	— STRAINER
1	— BELT GUARD	1	— FAN BELT
250′	— ⅜″ I.D. HOSE	4	— SMALL HOSE CLAMPS
6′	— ¾″ I.D. NYLON REINFORCED HOSE	2	— LARGE HOSE CLAMPS
6′	— ⅜″ I.D. NYLON HOSE	2	— TAPER HOSE CONNECTORS
1	— FAN BELT PULLEY	1	— INSTRUCTION BOOKLET
1	— PRESSURE GAUGE	1	— SHIPPING CRATE
1	— POWER CORD		

CALL BWE, INC., FOR PRICING AND ADDITIONAL INFORMATION, AT (702) 871-1301.

1A 187759

January 1986

PRICE LIST*

BWE 3000 — Asbestos Penetrating Encapsulant

Quantity	Packaging	Price per Gallon	Price per Drum
1	55-Gallon Drum	$6.75	$371.25
2 - 9	55-Gallon Drum	$6.00	$330.00
10 - 35	55-Gallon Drum	$5.50	$302.50
36 - 65	55-Gallon Drum	$5.00	$275.00
66+	55-Gallon Drum	$4.75	$261.25

BWE 5000 — Asbestos Chemical Removal Encapsulant

Quantity	Packaging	Price per Gallon	Price per Drum
1	55-Gallon Drum	$5.50	$302.50
2 - 9	55-Gallon Drum	$4.75	$261.25
10 - 35	55-Gallon Drum	$4.25	$233.75
36 - 65	55-Gallon Drum	$3.80	$209.00
66+	55-Gallon Drum	$3.35	$184.25

Additional Packaging Charges

The following additional charges apply for packaging in containers smaller than 55-Gallon Drums:

Container	Additional Charges
5-Gallon Plastic Pail	$1.70 per pail
1-Gallon Plastic Bottle	$ .75 per bottle, plus $ .75 per box (minimum order 4 bottles) (4 bottles per box)
1-Quart Plastic Bottle	$ .50 per bottle, plus $1.00 per box (minimum order 16 bottles) (16 bottles per box)

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* — Prices are subject to change without notice.

All prices are: F.O.B. Factory, Las Vegas, Nevada 89103

Terms: Net 30 on approved credit, otherwise C.O.D.

Sales & technical information can be obtained by calling: (702) 871-1301.

Our office hours are: Monday thru Friday, 8:00 a.m. - 5:00 p.m.

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BWE BETTE
ENVIR
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Las Vegas, NV 891
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