

*Form sent to all
of our Plasterers*
ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

W. R. GRACE & CO., 111 SO. NAVAJO STREET, DENVER, COLORADO 80223 303-722-5707

June 6, 1972

7096633

PLAINTIFF'S
EXHIBIT
WRG-1687A

Nielsen Plastering Company
140 S. Elati Street
Denver, Colorado

Subject: Mono-Kote Check List

Gentlemen:

I realize that you have been spraying Mono-kote for several years and are well versed in its use and application, however, I feel that now is a good time to review some very important facts about equipment, job set-up and application of Mono-Kote.

I hope that you will go through this information with the thought in mind that you just might see something that you should be doing and are not, but at any rate, you may want to get this information to your crew foreman and see that he complies in order to get the most work done for the least amount of money.

MONO-KOTE CHECK LIST

I. Sequence:

- a. Request a job meeting where all other subs are present to get understanding of sequence.
- b. Start before any other trade including sheet metal, plumbers, iron workers, or job shacks are placed on any floor.
- c. Fireproofing prior to installation of window wall, column covers, etc. should be covered in normal job progress.

An unobstructed floor is essential to your economical and profitable application. Good coordination and co-operation may be a responsibility you will have to assume.

GRACE

25055956

7096634

II. Mixing Location:

Buy, beg, borrow, steal, bribe, threaten, coax or cajole everyone to get the largest most accessible and most advantageous mixing site on the entire project.

Get enough room to build a covered mixing and material storage shed if bad weather is expected and to prevent welding rod, etc., from being thrown in the mixer or pump.

Storage capacity requirements will vary with daily production rate and proximity to production plant and/or transportation efficiency.

Maintain a production record at the mixer and transfer these figures daily to a chart in the office. Proper use of this chart will tell you each day whether you're winning or losing.

III. Steel (Concrete) Condition:

While Mono-Kote will bond to almost anything, you will save yourself patching time if heavy loose rust and mill scale is removed by wiping with a burlap rag by the steel supplier, erector, or other as the specifications require. Oil on steel or concrete should be removed with trisodium phosphate or other cleaners by those responsible for such cleaning.

IV. Equipment:

Communications: Voice communications between the floor and the mixing station is necessary for good coordination.

Mixer: The mixer should be big enough to mix the output of the pump and preferable it should have rubber wipers on the paddles. Build a working platform for the mixer-man so that mixer is waist high. The platform should hold a minimum of 600 sacks. It should be equipped with the largest quick fill tank available. Insure that proper water pressure is available.

Pump: The pump should be oversized rather than "just adequate" and should be in perfect mechanical condition. A full flow shut-off valve at the pump is necessary.

Pipe: Best for risers and should have long radius elbows or even custom bent pipe for minimum friction. All fittings and valves should be full flow. Surge line and pipe up to the working floor should all be 2-½" diameter. Pipe or hose on floor should be 2" diameter.

7096635

Hose: From pipe to scaffold should be minimum 2" I.D. The last 50' may be 1 1/2" hose. Scaffold hose should be 1 1/2" of 1 1/2" hose. Failure to follow these recommendations will result in loss of yield, lower daily volume and an over-worked pump.

Reducers: Custom fabricated reducers, when changing size of pipe or hose with a gradual change in diameter, are better than commercial reducers. Bushings should never be used.

Shut-Off Valve: A full flow shut-off valve should be placed in the whip so it can be hand or foot operated but does not have to be held when spraying.

Nozzle: A short, light, nozzle which can be used like a paint spray can get into tight spaces and can be directed to the top of the bottom flange and is easier on the nozzle-man. Nozzle should have no hardware on it. Only a small well-worked swivel between hose and nozzle. Orifice should not be larger than 1/2".

Air: Auxilliary air or air from the general contractor will provide the greater volumes and pressures needed for proper pattern.

Scaffold: Use the proper scaffold for that particular job. The standard is a 10' square scaffold with ball bearing 10"-12" wheels. The nozzleman must feel secure on a stable scaffold or he will shut the gun off when moving. This will cost you more money than the cost of a good scaffold.

V. Mixing and Application:

1. Use proper water ratio to obtain 20 lbs. net bucket weight or less at nozzle.
2. Mixing cycle should be at least 3 minutes after all material and water is placed in mixer. Rarely will you have a chance to mix much longer than this on high production job.
3. Have as few shutdowns at nozzle as possible. Naturally, this helps production but will also help yield. Each time you shut off the nozzle you develop hose pressure which compresses material and affects yield.
4. Insist that the nozzleman have, and constantly use, a workable thickness gauge. This is another important money maker. Insure that the scaffold is of proper height so that the workable thickness gauge can be used.

7096636

V. Mixing and Application: (Continued)

5. Pick the best spray men available and not just "A Run of the Mill" journeymen. Pick men for fireproofing similar to picking men for good acoustic texture spraying.
6. Explain to the crew the importance of not wasting material in a fireproofing operation. Excessive production attempts can only cost money by waste of material and clean up. Set production figure where men can handle without waste. (Haste makes waste).
7. Proper spraying procedure can make job estimates more reliable.
8. The real important thing in production is keeping the nozzle running 6½ to 7 hours per day and this can be done if the aforementioned items of pre-planning are used.

IMPORTANT!!!

The two most important items for getting the best yield with Mono-Kote are:

1. Consistant amounts of water put into each batch of Mono-Kote.
2. The constant daily use of a ten quart bucket for determining wet density at the nozzle. (This weight should be 20 lbs. net or less).

Should there be any questions concerning the aforementioned, I will be very pleased to hold a meeting with you and your personnel for clarification.

Very truly yours,

CONSTRUCTION PRODUCTS DIVISION
W. R. Grace & Company

William T. Dingler
William T. Dingler
Branch Manager

WTO/ds

25055959

Price increase on M-R sent to all Bldg. Bndrs.

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

W. R. GRACE & CO., 111 SO. NAVAJO STREET, DENVER, COLORADO 80223 303-722-5707

June 5, 1972

7096637

Pierce-Eiden Lathing Company
1010 Lupo Street
Dallas, Texas 75207

Attn: Mr. Jerry Eiden

Dear Mr. Eiden:

Due to rising costs, we are being forced into making a price increase on most of our Zonolite bagged goods effective June 15, 1972.

I realize that you and some of your customers have bids outstanding under our present price, according to Zonolite Policy, we will protect these prices, however, it is necessary that you furnish us with a complete list of these "Price Protected Jobs".

Should there be any questions concerning any part of this information, please call me and I am sure we can get it worked out.

Very truly yours,

CONSTRUCTION PRODUCTS DIVISION
W. R. Grace & Company

William T. Dingler
William T. Dingler
Branch Manager

WTD/ds

Encl:

GRACE

25055960

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

W. R. GRACE & CO., 111 SO. NAVAJO STREET, DENVER, COLORADO 80223 303-722-5707

709663S

EFFECTIVE DATE: JUNE 15, 1972

F.O.B. DENVER PLANT
PLASTERING CONTRACTORS

MONO-KOTE 3

100 BAGS OR OVER --- 2.60
LESS THAN 100 BAGS --- 2.80

MONO-KOTE 4

100 BAGS OR OVER --- 2.74
LESS THAN 100 BAGS --- 2.94

TRUCKLOAD SHIPMENTS (600 SAX)

MONO-KOTE 3 --- 2.55
MONO-KOTE 4 --- 2.69
PLUS \$1.10/LOADED MILE WITH
MIN. CHARGE OF \$55.00/PER LOAD

300 SAX LOADS

MONO-KOTE 3 --- 2.60
MONO-KOTE 4 --- 2.74
PLUS \$1.10/LOADED MILE WITH
MIN. CHARGE OF \$27.50/PER LOAD

GRACE

BILL DINGLER
BRANCH MANAGER

25055961

Ind - St Louis
Bob

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

W. R. GRACE & CO., 111 SO. NAVAJO STREET, DENVER, COLORADO 80223 303-722-5707

Approval
Depress

June 7, 1972

7096639

Mr. John Stone, P. E.
Acting Director
City & County of Denver
Building Department
1445 Cleveland Place
Denver, Colorado 80202

Re: National Headquarters
Blue Cross/Blue Shield Bldg.
Denver, Colorado

Dear Mr. Stone:

I request your approval for Zonolite Mono-Kote to be used on the above building in accordance with the Underwriter's Laboratory Design #0826 for protection under the bottomless trench headers and the remainder of floor area as required. The beam protection will be in accordance with our Underwriter's Laboratory Design #N706 using 7/8 of an inch thickness.

As you are aware, Design #0826 is for sprayed fibers and our Product is cementitious, however, my Company has run pilot tests indicating that we will be able to pass this bottomless trench fireprotection test and we have scheduled a full scale test at Underwriter's Laboratory but it cannot be run for approximately six months.

I hope that you will be able to make this interpellation and I promise that you will have an acceptable fireproofing job, should our Company furnish Mono-Kote on this project.

Sincerely,

CONSTRUCTION PRODUCTS DIVISION
W. R. Grace & Company

William T. Dingler
William T. Dingler
Branch Manager

APPROVED _____

DATE _____

WTD/ds

GRACE

25055962

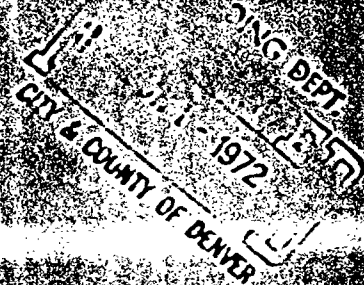
ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

7096610

W. R. GRACE & CO., 111 SO. NAVAJO STREET, DENVER, COLORADO 80223 303-722-5707

May 30, 1972



Mr. John Stone, P. E.
Acting Director
City & County of Denver
Building Department
1645 Cleveland Place
Denver, Colorado 80202

Re: Mountain Bell
Denver Service Center

Dear Mr. Stone:

I am asking your approval of Mono-Kote direct to steel fireproofing for 3 hr. beams and 2 hr. rating under Bottomless Trench Headers as manufactured by H. H. Robertson on above projects.

H. H. Robertson has received your approval for use of their QL-99 and QL-WXX for a 2 hr. decking, not to exceed 14'-0" span. This system has fireproofing on Trench headers and beams only and does not require direct to steel fireproofing on the remainder of the decking.

I request your approval for protecting the Trench header as specified in the 1972 U. L. Fire Resistance Index Design #D722 for a 2 hr. assembly and our beam test in Design #N706 for 3 hr. beam.

Sincerely,

CONSTRUCTION PRODUCTS DIVISION
W. R. Grace & Company

William T. Dingler
Branch Manager

APPROVED

John Stone

DATE

6/1/72

Encl: Photo copy of Design #D722 & Design #N706
Copy of H. H. R. Approval

GRACE

25055963

*Copy of letter
to our Dealers along
with New Price
Sheet*

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

W. R. GRACE & CO., 111 SO. NAVAJO STREET, DENVER, COLORADO 80223 303-722-5707

June 5, 1972

7096641

United Building Centers
Anderson, Inc. (M-23)
So. 15th Street
P. O. Box 506
Laramie, Wyoming 82070

Attn: Mr. Bob Honken

Dear Mr. Honken:

Due to rising costs, we are being forced into making a price increase on most of our Zonolite bagged goods effective June 15, 1972.

I realize that you and some of your customers have bids outstanding under our present price, according to Zonolite Policy, we will protect these prices, however, it is necessary that you furnish us with a complete list of these "Price Protected Jobs".

I call your attention to the new format that we are using for the new price pages. All of the pages are priced at Dealer prices and your costs, you will note, can be arrived at from the discount sheet enclosed.

Should there be any questions concerning any part of this information, please call me and I am sure we can get it worked out.

Very truly yours,

CONSTRUCTION PRODUCTS DIV.
W. R. Grace & Company

William T. Dingler
William T. Dingler
Branch Manager

WTD/ds

Encl:

GRACE

25055964

**ZONOLITE
CONSTRUCTION PRODUCTS DIVISION**

70966-12

TO Bob deBastian

DATE July 28, 1972

FROM Bill Dingler

SUBJECT

cc: T. M. Dougall

Dear Bob:

Your applicator agreement really looks great and seems to cover all contingencies, however, I would like to see Item #5 on page 1 made just a little more descriptive.

Example:

5. a. You will promote the application of MONO-KOTE® structural fireproofing by approved applicators and refrain from the promotion and application of any other product which might compete with MONO-KOTE.

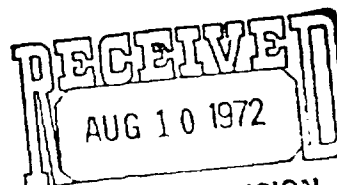
Additional item:

8. As an approved applicator you are entitled to purchase MONO-KOTE direct from W. R. Grace & Company at the lowest established price.

Sincerely,

Bill Dingler

BD/ds



HOME OFFICE



ZONOLITE DIVISION
ST. LOUIS, MO. 63110

25055965

Jul 21

ZONOLITE
CONSTRUCTION PRODUCTS DIVISION

7096613

TO **Jud McDougall - St. Louis** DATE **July 17, 1972**

FROM **Bill Dingler - Denver**

SUBJECT **Weaver Beatty Imports**
Denver, CO

CC

Dear Jud:

I am attaching a letter from Richard O'Brien claiming that we are responsible for Mono-Kote failure on the above project. This is the project that you and Bob deBastian went with me to inspect.

In my conversation with Mr. O'Brien, it was determined that he feels that it will take approximately \$500.00 to pay for the repair work necessary to make a lasting job. I notified Mr. O'Brien that if a settlement is made by us, that it will be a one time thing and he will have to sign a release, releasing W. R. Grace from any further claims concerning this project.

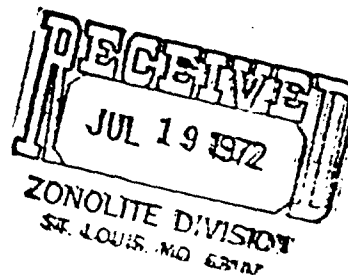
I am attaching my correspondence pertaining to the problems experienced on this job.

Sincerely,

Bill

Bill Dingler

BD:ds



HOME OFFICE

GRACE

25055966

Richard O'Brien Plastering Co.

(303) 733-7201

1001 South Galopago St.
DENVER, COLORADO 80223

July 10, 1972

Specializing in

Partition and Ceiling Systems
Concrete Pumping

Zonolite
111 So. Navajo
Denver, Colo.

Att: Mr. Bill Dingler

Re: Weaver Seatty Imports

Bill:

In regards to your letter of June 16, 1972. We feel your company is responsible in this failure. Due to the following reasons:

Item #1 Our company as an applicator have never been informed that this was a problem area in the gauge of the metal building.

Item #2 You were specifically called out to this job due to freezing of your material in this area and we reapplied this material following your directions which you assured us we would not have any future failures if applied as directed.

We feel your company is responsible in this case due to the failure of their material on the application. Due to this failure the builder will not pay us our final bill of \$719.00 plus what ever other costs we may occur in redoing these problem areas.

Yours truly,

Richard O'Brien

Richard O'Brien Plastering Co.



25055967

ZONOLITE

7096645

CONSTRUCTION PRODUCTS DIVISION

W. R. GRACE & CO., 52 WHITTEMORE AVENUE, CAMBRIDGE, MASSACHUSETTS 02140 617 876-1400

June 16, 1972

Richard O'Brien Plastering Co.
1001 South Galepage
Denver, Colorado 80223

Project: Weaver Beatty Imports
10345 W. Colfax
Metal Bldg. Addition
Denver, Colo. 80202

Dear Mr. O'Brien:

I went out to the above project on June 14, 1972 and looked at the roof areas where the Mono-Kote had come loose from the roof assembly. I had with me, my District Manager, Mr. Jud McDougall and the Regional Architectural Representative, Mr. Bob DeBastian. We mutually agreed that the bond failure was not due to any deficiency in Mono-Kote but was obviously caused by primarily vibrations in the metal caused by excessive winds. The areas involved in the Mono-Kote delaminations are around vent stack areas and at the roof ridge of the building.

If you request any further questions concerning the above project, please give me a call.

Very truly yours,

CONSTRUCTION PRODUCTS DIVISION
W. R. Grace & Company

William T. Dingler
Branch Manager

WTD/ds

We hope the information given here will be helpful. It is based on our best knowledge and we believe it to be true and accurate. Please read all statements, recommendations or suggestions herein in connection with the conditions of sale which apply to all goods supplied by us. We assume no responsibility for the use of these statements, recommendations or suggestions, nor do we intend them as a recommendation for any use which would infringe any patent or copyright.

GRACE

25055968

ZONOLITE

CONSTRUCTION PRODUCTS DIVISION

70966-16

W. R. GRACE & CO., 62 WHITTEMORE AVENUE, CAMBRIDGE, MASSACHUSETTS 02140 617-876-1400

February 23, 1972

Richard O'Brien Plastering Co.
1001 South Galapago
Denver, Colorado 80223

Project: Weaver Beatty Imports
10345 W. Colfax
Denver, Colorado
Metal Bldg. Addition

Dear Mr. O'Brien:

In regard to fireproofing of above project with our Zonolite Mono-Kote, we would like to submit the following information:

During the time your crews were applying our Mono-Kote to the above project, I was on the job and observed your crews mixing and application procedure and found that they were doing this correctly. On February 18, you notified me that the Mono-Kote that had been applied to the metal roof deck had all fallen off and asked that I meet you on the project to determine the cause. My investigation of this problem led me to believe that the sole reason for failure was due to freezing temperatures on the exterior of the building while the interior was sealed up, thereby not allowing the Mono-Kote to dry out. In other words, with the room sealed up, the Mono-Kote stayed very wet, as a result it was much more susceptible to the freezing temperature on the metal roof deck.

Very truly yours,

CONSTRUCTION PRODUCTS DIVISION
W. R. GRACE & COMPANY

William T. Dingler
Branch Manager

WTD/ds

We hope the information given here will be helpful. It is based on our best knowledge and is not intended to be a warranty or guarantee of performance. Please read all statements, recommendations or suggestions hereon carefully and apply them to the specific conditions which apply to all goods supplied by us. We assume no responsibility for the use of our products in any manner not recommended or suggested, nor do we intend them as a recommendation for use in any manner not recommended or suggested.

GRACE

25055969

1687