

LEAD INDUSTRIES ASSOCIATION, INC.

292 MADISON AVENUE

NEW YORK, N. Y. 10017

TELEPHONE - AREA CODE 818

OR 9-4028

August 6, 1964

SUBJECT: LEAD WOOL

To Members of the Lead Industries Association, Inc.:

Earlier this year the Lead Industries Association devoted one of its ads in ENGINEERING NEWS-RECORD to the use of lead wool for calking and it is quite possible that in the future other ads may be devoted to the same subject.

Quite a few inquiries have been received from people who wish more detailed information on the subject and have little or no familiarity with lead wool. To handle such inquiries we have prepared the attached memorandum which will be sent to those making inquiry. We would appreciate it if you would read this memorandum and point out any errors that you may find in it.

Attached to the memorandum we would like to include a list of members who sell lead wool. Won't you please indicate on the form below whether you sell lead wool and return it to us. In this way we hope that the list will be as accurate as possible and that no one who has this material for sale will be omitted from the list.

Very truly yours,



Executive Vice President

RLZ:mk
Enc.

Please return to:

Mr. Robert L. Ziegfeld, Executive Vice President
Lead Industries Association, Inc.
292 Madison Avenue
New York 17, N.Y.

do
We do not sell lead wool.

Company Name

By _____


Look Ahead with Lead

LEAD INDUSTRIES ASSOCIATION, INC.

292 MADISON AVENUE

NEW YORK, N. Y. 10017

TELEPHONE - AREA CODE 212

OR 6-6026

LEAD WOOL FOR CALKING

What is it? - Lead wool is nothing more than fine threads of lead metal inter-twined in such a manner as to form a loose, rope-like strand about 1-1/2" in diameter. Lead wool for calking should meet the requirements of American Water Works Association specification: AWWA C600-54T, Sec. 5a.5 for calking lead.

Where is it used? - Ordinarily, lead wool is used wherever poured calking lead is desired but is either not available or not practical. For instance, it has the decided advantage of requiring no melting and may thus be used where heat or flame constitute a hazard. Lead wool may be employed in damp areas as well, and under water. It has even been used to repair small leaks on very low pressure boilers and leaky pipe joints, however, it must be remembered that in most cases, such repairs are only temporary. It may also be used as an anchorage for all types of materials into masonry, hardwood and metal walls or floors. In addition, it can be made into grommets for use under bolts where leaks occur. Of course, a well-known use for lead wool is to calk the joints between granite facing blocks on piers, footings, etc.

Quantities available - Lead wool is commercially available in 5 lb. cartons, 50 lb. bags and on large wooden reels. Members of the Lead Industries Association who manufacture or sell lead wool and can supply price and delivery information are listed on the attached sheet.

In addition, lead wool can be purchased in small quantities and by mail from several of the larger mail order-retail chains in the United States, such as Sears, Montgomery Ward, etc.. Plumbing supply houses normally stock quantities of lead wool, and other sources would be listed under "Lead" or "Lead Products" in the Yellow Pages.

How is lead wool used? - To calk a joint or crack of whatever size, one should attempt, as much as possible, to undercut the side walls of the opening so that the top — through which the lead is calked — is somewhat narrower than the base of the cavity. Thus the final cross section of the calked hole would ideally appear as in figure 1. Leave all edges rough to provide more grip to the lead wedge wherever possible. When calking the lead wool with a straight, flat-ended iron or chisel, it is best to calk only one or two layers at a time. Of course, for smaller holes, less should be fed into the opening at the start. If the hole is wider than the diameter of the wool, the wool should be spread somewhat to fill the joint from wall to wall, and if a low spot develops, the wool should be lapped at that point in order to bring it up to level. To avoid a lump where a new piece of lead wool joins another, the ends should be reduced by half and worked together before calking.



Look Ahead with Lead

LEAD WOOL FOR CALKING (Cont'd)

How does lead wool work? - Under the terrific pressure generated beneath the point of the calking iron, the tiny filaments of lead wool actually "cold weld," or fuse into a single piece of lead. Properly calked, lead wool actually forms a tighter and more impervious seal than poured lead.

Storage - Lead forms a natural patina, or protective coating, on exposure to air -- this coating accounts for lead's remarkable endurance -- an important factor in its choice for roofing, flashing and calking applications. However, the individual threads of lead wool are so fine that nearly the entire strand will be converted to oxide if the wool is left exposed to the air for a prolonged period. Therefore, lead wool ideally should be used when opened and not stored indefinitely.

How much does it take? - To figure the amount of lead wool needed to fill any given joint, calculate the area to be filled (average width X average depth X length) in cu.in. or cu.ft. If you use inches, multiply your answer by 0.4092 to obtain the number of pounds of lead wool to be ordered. If you have an area to calk that can be measured in cu.ft., multiply by 707 to obtain the approximate number of pounds of lead wool required to fill the hole you measured. Lead wool runs approximately one pound per linear foot.

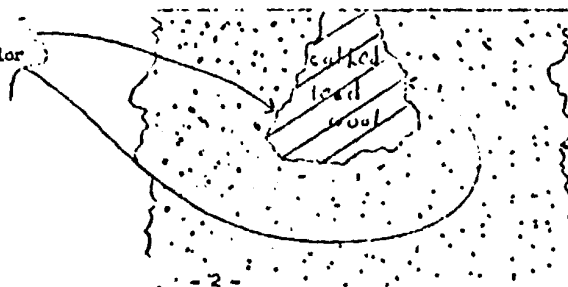
Lead wool is economical - Lead wool is economical to use because no furnace or heat is necessary, none is lost through spillage, and there can be no loss through dross.

Lead wool for masonry joints - The joints between the granite facing blocks at the base of the supporting towers of the Verrazano-Narrows Bridge were recently calked (above the low water mark) with lead wool. Ordinary concrete grout eventually weathers and spalls out of such areas as this, necessitating frequent repointing and periodic maintenance. This is especially true where water works its way into cracks and subsequently freezes. Thus the general contractor specified lead wool calking. In this case, the specifications called for joints of an average thickness of $3/4$ " plus or minus $1/4$ ", and raked to a depth 1 and $1/2$ times the thickness of the joint. This would come to an average lead depth of 1 and $1/8$ " once the joint was calked.

If you should have further specific questions about lead wool, the Lead Industries Association, Inc. would be glad to hear from you.

Edges of hole
slanted back prior
to calking

FIG 1.



8/6/64

Sent only to the following members:

Max Adler
Allied Smelting Corp.
5116 W. Lincoln Ave.
Milwaukee 14, Wis. 53214

Harold Herzog (Hertzog)
Alpha Metals, Inc.
Box 34, Bergen Station
Jersey City, N.J. 07304

T. B. Avril
The G. A. Avril Co.
Lead Products Div.
P. O. Box 12050
Cincinnati, Ohio 45212

Julian Bers
Bers & Co., Inc.
Ashland & Lewis Sts.
Philadelphia 24, Pa.

W. G. Hewitt
The Bunker Hill Co.
Box 29
Kellogg, Idaho 83831

A. W. Goose
Cambridge Smelting Co.
100 Pacific St.
Cambridge, Mass.

R. B. Dickson
Dickson Weatherproof Nail Co.
Box 590
Evanston, Ill. 60204

C. E. Bassett
Dixie Lead Co.
Box 8625
Dallas, Texas

D. R. Carter
The Eagle-Picher Co.
American Bldg.
Cincinnati, Ohio 45201

A. M. Callis
Federated Metals Div.
American Smelting & Refining Co.
120 Broadway
New York 5, N.Y.

C. R. Willard
Willard Lead Products Co.
101 E. Griffith St.
Charlotte, N.C. 28203

R. A. Gardiner
Gardiner Metal Co.
4820 S. Campbell Ave.
Chicago, Ill. 60632

W. P. Wilkie, III
Hammond Lead Products, Inc.
5231 Hohman Ave.
Hammond, Indiana

A. P. Knapp
Knapp Mills, Inc.
23-15 Borden Ave.
Long Island City 1, N.Y.

Virgil Murph
Murdock Lead Co.
P. O. Box 5298
Dallas 22, Texas

Robert Putney
National Lead Co.
111 Broadway
New York 6, N.Y.

R. L. Oatey
The L. R. Oatey Co.
4700 W. 160th St.
Cleveland, Ohio 44135

Joseph Boritzer
Revere Smelting & Refining Corp.
387 Avenue P
Newark, N.J. 07105

Howard Novasel
The Victory White Metal Co.
6100 Roland Ave.
Cleveland, Ohio 44127

Jacob M. Viener
Ryman Viener & Sons
P. O. Box 573
Richmond, Va. 23205

R. G. Conklin
Vulcan Lead Products Co.
1545 W. Pierce St.
Milwaukee, Wis. 53204

R. N. Quenell
Western Lead Products Co.
P. O. Box 2291
City of Industry, Calif.