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Inter-Office Communication

MINERALS, PIGMENTS AND METALS DIV'N
PFIZER INC.
836 NATIONAL BANK BLDG.
TOLEDO, OHIO 43604



(X)

TO: Mark Hoffman - Easton
FROM: Harry E. Rourke - Toledo
RE: Kilnoise Acoustic Plaster - Problems and Improvements

July 28, 1971

At the present time, there are two problems with Kilnoise as we manufacture it today.

1. Inadequate acoustical absorption (.50 NRC minimal requirement).
2. Potential environmental problem because of the asbestos ingredient.

Mark, the most important problem to solve is the need for an acoustical improvement on solid backing. Our literature, copy of which is enclosed, indicates that Kilnoise has a noise reduction coefficient of .50 under the Rourke Method, and .60 under the standard method (dry basecoat application), but this schedule of absorption is based on a suspended metal lath mounting which is typical in normal school, church, etcetera, construction.

However, the job that I am principally concerned with requires a solid mounting, which means that Kilnoise is being applied direct to concrete. This job is the new subway system in Toronto, Canada, which can amount to 100,000 bags of Kilnoise or more. Kilnoise was accepted and is being applied on the tunnel job, predicated on its performance of at least .50 NRC on a solid backing. It then became necessary for us to build mock up samples and test them at Geiger Hamme Acoustical Laboratories at Ann Arbor, Michigan, to meet the required minimum spec of .50 NRC. To date we have run X panels at a variety of thicknesses on solid backing with the following results:

5/8" Perforated (Test run May 3, 1971)

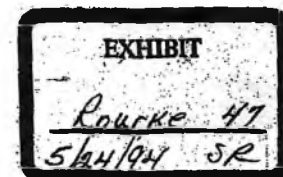
125	250	500	1,000	2,000	4,000	NRC	Actual
.10	.20	.35	.48	.59	.62	.40	.40 (.162)

5/8" Perforated Brush Stippled (Test run February 26, 1971)

125	250	500	1,000	2,000	4,000	NRC	Actual
.11	.25	.42	.54	.65	.67	.45	.46.5

SAMPLE 15821

520 04084



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" Perforated (Test run February 26, 1971)
125 250 500 1,000 2,000 4,000 NRC
.15 .31 .37 .42 .38 .31 .35

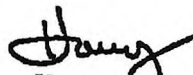
" Perforated (Test run February 26, 1971)
125 250 500 1,000 2,000 4,000 NRC
.8 .38 .45 .43 .35 .26 .40

" (Strong) Brush Textured and Perforated (Test run July, 1971)
125 250 500 1,000 2,000 4,000 NRC
.16 .22 .30 .31 .33 .33 .30

you can see, we are not meeting at .50 NRC. In order for us to maintain our
ition with regard to the tunnel application, it is imperative that we do meet
.50 NRC even though we have to modify the product.

addition to the Toronto subway system, we are working on another subway
tem in Washington, D. C., that will encompass 72 miles of tunnels. At the
sent time, we are laying the groundwork for Kilnoise to be specified and used.
If we fail to meet performance in Toronto, there will be no opportunity to get
Washington, D. C. job. A competitive material that to my understanding has
n used is Cafco Sound Shield 85, as manufactured by U. S. Mineral Products.
n making arrangements to pick up samples off Cafco for your determination as
whether there is something in that product that would complement the NRC value
Kilnoise when applied to a solid backing. These samples should be in Easton
week of August 5. Cafco claims that their material contains lime, therefore,
ists rusting and staining. We are presently shipping U. S. Mineral Products
roximately 100 tons of Type "N" Lime a year, which we assume they are putting
o a Sound Shield 85. In my opinion, they should be using Type "S" which would
ance the application, but I would rather not call that to their attention at this time.

ink a meeting would be in order between you, Bill Stephenson, Bob Plantz and
self, and Roger Linnett and Don Ingram, if they can be available, to review the
tory of the development of Kilnoise with regard to its changing in content and
discussion on application versus performance from an acoustical standpoint.
doing this, we can develop a course to pursue with the improvement of the prod-
.. I am hopeful that in finding ways to increase the acoustical value, we might
o solve the potential hazard of asbestos and possibly eliminate the need for any
nd tool work, such as brush texturing or nail perforating. In other words, if we
ve a material that we can spray on and walk away from, with good acoustical val-
, we may solve many problems and open new markets. Would you please review
: foregoing and advise Bob Plantz and myself as to when it would be convenient
: you to review this matter with us.


Harry

ER:jj
cl.

SAMPLE 15822

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