

The RUBEROID CO.

C. R. E. AUG 16 1948

Mr. C. R. Eckart, Bound Brook (2)

August 5, 1948
(Dict. 8/4/48)

Messrs. Maxwell, Rich, Gordon, Gard, Cartman,
E.C. The Cowan Nesbit

PLAINTIFF'S
EXHIBIT
GF-2359

CALCILITE PROGRESS REPORT

As per your verbal instructions of July 23rd we have ordered sufficient pipe covering molds, cores and boss plates to permit operation on the basis of 70% pipe covering and 30% block. Delivery is to start three weeks from receipt of order and to be completed within 3 months. As the new molds are received, we will place into production and withdraw the block pans. All the new molds are to be manufactured from the improved type, special alloy, and will be so stamped in order that they may be distinguished from the older type. We are confident that the special alloy will materially reduce breakage inasmuch as it is actually 56% stronger; test bar tensile strength shows 18,000 pounds per square inch, on the old and 28,000 pounds per square inch on the new. The new molds also have an "aging property". After 21 days they have a total tensile strength of 35,000 pounds per square inch or are 94% stronger than the old type which do not have this "aging property". Furthermore, the special alloy molds have double the elongation which means they will be much less susceptible to cracking under autoclave temperature.

Yesterday Mr. Cowan and Mr. Moffit accompanied by Mr. Maxwell spent some time in the Calcilite Department. Mr. Cowan was particularly interested in the canvas liner used in P.C. molds and in the Calcilite cement. He actually unmolded a canvas-lined mold and also applied a small amount of Calcilite cement. I presume he will report further details of his trip to Mr. Abraham.

The 6-ton tender for Calcilite cement has been completed and was shipped July 27th. We are now mixing the 50 bags for Chicago and this will be shipped as soon as the carload of blocks are ready.

Production for July (based on 20½ operating days) at 58% of list amounted to \$17,420.00 of which \$640.00 was for sale of Calcilite cement. We have not as yet received July's operating costs from the Accounting Department. July's production was not as high as that for June for several reasons:

1. June production was based on 22 operating days. We were only able to obtain 20½ days in July due to the holiday on the 5th and due to ½ day shutdown on the 8th because of Powerhouse failure.
2. We placed into production in June (and still in use) molds for 10" x 1½" P.C. In July we placed in use P.C. molds for 8" x 2", 10" x 2", 12" x 1½" and 16" x 1½". Large size P.C. is not as profitable to run as the small sizes because - -
 - a) We lose in autoclave capacity, e.g., we can only place 2-#19 molds (16" x 1½") in an autoclave car.
 - b) Due to length of time required to build up an appreciable quantity of large sizes it is sometimes several months before any milling and packing is done. In other words, we do not get credit for this production until it is in cartons. The actual milling and cartoning is often done months after this material is delivered from drier and first stored in racks.

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3. a) Due to motor trouble on #2 Bentonite Tank it was necessary to store three batches of slurry in #1 Lime Tank over the weekend. The Lime Tank is furthest from the mixing valve and slurry would not flow Monday morning without forcing thru pipe with steam. When material was autoclaved it was soft. Rather than throw it out we dried and milled it, but there was high breakage and rejects.
- b) On another weekend we were required to clean both Bentonite Tanks. We stored 3 batches again in #1 Lime Tank but kept agitator running in hopes that slurry would flow freely on Monday AM. We experienced some results as (a) above.
4. Rejects and breakage were higher than usual due to (3) above.
5. Our experienced operator (milling machines) was on vacation for part of July. The less experienced substitute lost considerable time in setting up and adjusting millers for the various sizes. Rejects were higher because it was necessary for him to run more blanks thru machines in order to get "on size".
6. In June we ran considerably more P.C. in extra thickness (over and above standard) which is more profitable.

Formuk 119-B-PC, autoclaved 7 hours

Blocks - average test results:

Density = 13.79
 Modulus = 53.15
 Modulus + Density = 3.87
 Abrasion:
 After 1st 10 minutes = 18.91
 " 2nd 10 " = 25.82

Pipe Covering

Density = 13.70
 Modulus = 69.95
 Modulus + Density = 5.08

Breakage

Blocks

Brkge. at unmolding = 1.38%
 " " block miller = 0.85%
 Rejects. " " = 5.96%
 8.19%

Pipe Covering

Brkge. at unmolding = 2.58%
 Rej. & brkge. at millers = 10.49%
 " " " " canvas
 ing = 6.50%
 19.57%

Pipe Covering - (eliminating runs of $1\frac{1}{2}" \times 1"$ and $10" \times 1\frac{1}{2}"$ which were milled mostly from watery slurry held over on two separate weekends in #1 Lime Tank)

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Breakage at unloading	=	2.58%
Rejects & breakage at Millers	=	7.29%
" " " " Canvassing	=	4.35%
		<u>14.22%</u>

Thermal Conductivity - Calsilite Cement:

Thermal conductivity tests on Calsilite cement, Magnesite cement, and Rockwool cement are under way. Results will be submitted during the last week of August.

P.C. Mold Breakage

1. We have substituted a heavier type canvas liner which does not wrinkle as much. We still get shrinkage and believe that sanforized (pre-shrunk) material will have to be tried. Further experiments will be necessary before we can determine actual value of this type liner.
2. All P.C. molds (for 30% block and 70% P.C. production) were ordered July 27th. We fully believe that the new type special alloy will reduce mold breakage. See first part of this report.
3. The Catalin Corp. of America are making a special cast resin mold which their representative will bring to Gloucester. If the slurry does not stick, the necessity for rough handling of molds will be eliminated.
4. Representative has not yet called to discuss use of Ethyl Cellulose Lacquer as an inner liner. A follow up letter was mailed 8/4/48.
5. A representative from the Gates Engineering Co. will call on the writer tomorrow relative to possible use of hard rubber as an inner liner.

J. K. ROBINSON

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