



January 10, 1983

REPLY TO: EAST WALPOLE, MA 02032  
TEL: 617-468-2500

Pete Esslinger  
Hercules Incorporated  
Bedford Executive Office Park  
Building 1  
Bedford, New Hampshire 03102

Dear Pete:

- As agreed on in our meeting on January 7, 1983, listed below are our cement formulas. All ingredients are in percent by weight.

SPECIAL FLASHING CEMENT

|                                           |     |
|-------------------------------------------|-----|
| Asphalt (approx. 135 <sup>0</sup> F S.P.) | 54% |
| Kerosene                                  | 14% |
| Naphtha                                   | 14% |
| Asbestos 6D                               | 9%  |
| Asbestos 7R                               | 9%  |

PLASTIC CEMENT

|                                           |     |
|-------------------------------------------|-----|
| Asphalt (approx. 135 <sup>0</sup> F S.P.) | 52% |
| Naphtha                                   | 18% |
| Asbestos 7R                               | 14% |
| Talc #36                                  | 13% |
| Kerosene                                  | 3%  |

BUILT-UP COLD APPLICATION ADHESIVE (BUCA)

|                                           |     |
|-------------------------------------------|-----|
| Asphalt (approx. 175 <sup>0</sup> F S.P.) | 51% |
| Naphtha                                   | 37% |
| Asbestos 7R                               | 12% |

FIBERED ROOF COATING

|                                           |     |
|-------------------------------------------|-----|
| Asphalt (approx. 135 <sup>0</sup> F S.P.) | 50% |
| Naphtha                                   | 38% |
| Asbestos 7R                               | 12% |

001229

January 10, 1983  
Page 2

#### REFLECTO-COAT ALUMINUM ROOF COATING

|                                           |     |
|-------------------------------------------|-----|
| Naphtha                                   | 38% |
| Asphalt (approx. 175 <sup>0</sup> F S.P.) | 28% |
| Al Paste - Alcoa #231                     | 20% |
| Asbestos - PT -1 or HB                    | 14% |

The other two products are seldom produced, but your technical people may be able to suggest formulas based on work with the frequently produced materials.

#### LAP CEMENT

|                                           |      |
|-------------------------------------------|------|
| Asphalt (approx. 135 <sup>0</sup> F S.P.) | 65%  |
| Kerosene                                  | 22%  |
| Naphtha                                   | 7.5% |
| Asbestos 7R                               | 5.5% |

#### QUICK SETTING LAP CEMENT

|                                           |     |
|-------------------------------------------|-----|
| Asphalt (approx. 210 <sup>0</sup> F S.P.) | 42% |
| Rock Dust                                 | 29% |
| Kerosene                                  | 12% |
| Naphtha                                   | 12% |
| Asbestos 7R                               | 5%  |

As mentioned by Jim Jackson, we are looking for a physical property equivalent at the lowest possible raw material cost. If your technical people wish samples of #36 Talc or our Rock Dust for possible addition to the formulas, please let me know.

Also; if you find any southern asphalt cement manufacturers using Pulpex, please let Jim Jackson know.

Enclosed is a copy of the memo to Shreveport asking them to send a 5 gallon blank and 1 gallon finished sample of each product to:

Mr. Ed Engle  
Hercules, Inc.  
Research Center  
Wilmington, Delaware 19899

001230

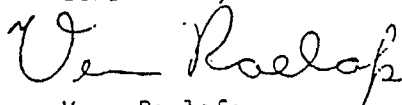
January 10, 1983  
Page 3

When they feel an equivalent formula has been reached, we would like to evaluate a sample and formula costs before proceeding to a mill trial.

Please do not hesitate to call if there are any questions.

Sincerely yours,

BIRD & SON, INC.



Vern Roelofs  
Chemist

cc: Mr. Jackson - BBH

bcc: Mr. Wood - BBP  
Mr. Maloof - BBP  
Mr. Suva - BR  
Mr. Colvin - FS

Note bcc:

This is in reference to replacing asbestos in our cements at Shreveport.

001231