Sam

Chrysotile ASBESTOS

THE DISCOVERY COMPANY

UNION CARBIDE CORPORATION • MINING AND METALS DIVISION • 270 PARK AVENUE, NEW YORK, NEW YORK 10017

July 15, 1971

Mr. Terry Smith
Marco Chemical Div.
W. R. Grace & Co.
8700 N.W. 36th Ave.
Miami, Florida 33147

Dear Terry:

I had hoped to get this summary of our meeting in the mail two weeks ago but another trip and the usual backlog of crises intervened. First let me thank you, Dick, Frank, José, and José for your time and interest. It was a pleasure to work with all of you.

When all of the information that needed to be sent was assembled, it made quite an imposing pile. I will, therefore, try to hit the high spots in the letter and leave the details in the attachments.

A draft of the sales literature we discussed for putties and patching compounds is attached as Item I. A copy of this has also been sent to Stan Mulder requesting his comments and suggestions. A number of the performance claims originated as feedback from the Marco field reps. so please check to make sure I am quoting accurately. Also, do not hesitate to revise as you feel appropriate. We can issue this in a few days once we have your suggestions.

This literature was written intentionally to be simple and non-technical. No mention was made of the possible need to reduce the amount of catalyst by ~1/3 in patching compounds containing 3-4% of RG-244 to avoid unduly short cure times. Also Bob Nicoud has noted that a "pinch" of pyrogenic silica enhances smoothness of the 244 system. It seemed best to me to leave these to the individual representatives to handle as each particular situation requires but they could be added easily if desired. Please comment on this.

A memorandum summarizing the test work on putty that was started with José Diaz when I was in Miami is attached as Item II. In essence, it indicates that RG-244 is about twice as effective as Cab-O-Sil whereas RG-110 is about equivalent. José was planning to check the properties of these putties as they aged. I would be most interested to hear how they are holding up.

Your attention is directed to Figure 1 of Item II. This graph suggests a very simple relationship between the amount of talc and the amount of RG-244

needed to give a "trowelable" putty that doesn't sag. It obviously needs to be rechecked with the same resin used for all blends before anyone "outside" sees it, but this would be a relatively simple job. Do you think a graph like this would be useful for either your field men or printed on the other side of the putty sales literature?

A memorandum summarizing our gel time tests on the Miami and Bartow gel coat resin samples is attached as Item III. The data show that the 4% loading of RG-244 does reduce the gel time by about 40-50% but a corresponding reduction in the amount of catalyst brings things back into line. José Diaz was to check your three other base gel coat resin types as they become available to see if this phenomenon applied to all resin types. Are there any results yet?

I have plotted up the data that José Diaz ran on the 9593 resin with the two promoter systems and have included it as Item IV. As we discussed briefly in Miami, when the RG-244 is added to this resin, the gel time drops significantly but shows good stability thereafter. In contrast, the Cab-O-Sil shows little change in gel time when first added but over 1-4 weeks drops down to pretty well the same levels as the RG-244. The thing that impresses me, however, as a biased observer, is the much better thix index obtained with the RG-244. You were planning to send me a 5-10 gallon sample of neutral gel coat base (as it comes in from Bartow) for one of your large volume gel coat types so that I could get some 244 vs. Cab-O-Sil data. I am still most interested in doing this. Has the resin been shipped yet?

That seems to be about it. I'll touch base with you by phone before I go on vacation the week of July 23 so we can get coordinated.

Regards,

H. B. Rhodes

HBR/bsn
Attach.
cc: Mr. Stan Mulder
bc: Messrs. R. E. Byrne
B. L. Ingalls
J. L. Myers
J. W. Rawlings

DRAFT

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CALIDRIA RG-244

POLYESTER PUTTY AND PATCHING COMPOUNDS

CALIDRIA RG-244 is a new, highly efficient fibrous thixotrope. Use it for viscosity control in talc or limestone-filled putties. Use it to thicken gel coat to make patching compound. Its many advantages include:

Very Little Dusting

Economical

Costs less per bag.
Normally use only 1/2 to 3/4 as much as pyrogenic silica.

Easy to Use

Wets out quickly.
Mixes in readily with drill press or other low shear mixer.

Handy to Store

Polyethylene overwrap standard - stays dry.
Small bag - less storage space.

Special Advantages - Patching

Virtually transparent - does not change color of patch.
Superior sandability.

Typical Putty (phr)	
Resin	100
Talc	80
RG-244	0.6
12% cobalt promoter	0.2

Typical Patch

Add RG-244 to the gel coat until desired thickness obtained. Usually 2-3 phr.

This paper contains "Calidria" asbestos T-135, an efficient, low-cost opacifer. It is 80-lb Fairmount offset [illegible]