

cc: Dr. J. V. Hunn, Cleveland

Chicago
PC and C
Sales
Detroit
W. H. Hoehn
Sept. 5

Auxiliaries Research
September 24, 1951
- Lithopone -
Mac-O-Lao - Detroit

We received the pigment samples and paint vehicles from the above company for testing the properties of Permolith 4QM against Ponolith EL-133 as per their suggested formula. Paints have now been made using, respectively; (1) Permolith W-320; (2) Permolith 4QM from Mac-O-Lao; and (3) EL-133 from Mac-O-Lao, as per the following formula:

850 grams Lithopone
25 grams 151 A Talo
3 grams Metasap
316.8 grams Grinding Vehicle
207.1 grams Thin down Vehicle

These paints were made on the roller mill, as per your suggestion.

The paints were examined after 1 day and after 5 days for package condition and consistencies. The results are as follows:

		Package Condition	
		1 Day	5 Days
W-320		Good Condition. No settling.	Good condition. No settling.
Permolith 4QM		Thin; definite soft settling.	Rather bad soft settling. Thin.
EL-133		Good condition. No settling.	Good condition. No settling.

		Consistencies			
		Stormer K U		Cleveland #3 Cup	
Grind		1 Day	5 Days	1 Day	5 Days
W-320	2.3	82	98	55	82
Perm. 4QM	3	86	91	30	42.6
EL-133	2	86	89	32.8	42.7

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Mr. W. H. Hoehn

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The above results confirm Mac-O-Lac results that this sample of Permolith 4QM does show bad settling. The consistency, when the pigment is in suspension, is not greatly different from the consistency of EL-133. However, when the pigment settles, the liquid above is very thin.

In the case of Permolith W-320, we get no settling at 5 days, but the consistency is somewhat higher than that obtained by EL-133, but still good painting consistency.

My recommendation is that we suggest that they try out Permolith W-320, as this will give them more hiding power and definitely more consistency with better suspension properties, based on the above tests.

This is the first time we have run into bad settling performance with Permolith 4QM and, unfortunately, we had no way of checking other lots of Permolith 4QM to see if they behaved similarly, because we had insufficient liquid for the tests. Furthermore, there is no way of checking up on this lot of Permolith 4QM because we do not know what lot it is.

I don't suppose it would be good business to recommend to them that they try a mixture of W-320 and 4QM to get their desired properties in view of the fact that EL-133 does the job, itself. I am, however, at a loss to make any other recommendation except that they try out W-320 by itself, and possibly they might like the creamy consistency and slightly thicker paint, as well as higher hiding power obtained with this pigment in flat paints. If they should try out the mixture of W-320 and 4QM, I would suggest a half and half mixture.

A second suggestion would be that we obtain an additional quantity of their grinding vehicle and thin-down vehicle (a gallon of each would be ample) so that we can make some preliminary checks on some shipments for them. If they are not agreeable to trying out the W-320 then I see no alternative except to get more vehicle and make further tests to see if this bad settling of 4QM is typical in their formula.

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