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Newark, New Jersey
December 17, 1981

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JACKSON LAB

"KROLOR" FOR JAPANESE THERMOPLASTIC ROAD MARKINGS
(Ref. PAW to DG 12/10/81)

Answers to your questions developed from discussions with LWP and REP.

Q. Reliably blend to color uniformity----

A. LWP has requested a sample of TOHO 3500 and Nikon 8011 from Chestnut Run. We will need to evaluate lab blends of substandard KY-787-D shaded with KO-789-D; believe M. W. Ott used standard product. Once we know masstone limits* we are aiming for, we'll need to run a test trial blend in an Inorganic Finishing area blender, about 2-8M lb. batch size, to determine ability (throughput, labor requirements, cycle time) to reliably blend to color uniformity, (no streaking), if important*.

*D.W.Hoppenjans - Please provide this information.

Q. Blending capacity for 300-500M lbs.

A. Based on 1982 and beyond, capacity exists. Equates to about 42M lbs/month for 500M lbs. AFS.

Q. Reliably control color using substandard KY-787-D.

A. Don't know until we do lab and trial plant blends. Currently KY-787-D S/S is blended to provide AFS sold at "Krolor" sales price. Thus, blendable S/S is sold at top dollar. Contaminated KY-787-D, for distress sale, could be used for the road marking trade, if it is readily blendable to masstone limits of the TOHO and Nikon product. While we have had a fair amount of "Krolor" yellow contaminated with orange, in 1981, our plant programs are geared to eliminating the sources and reasons for contamination. We should not count on a supply of substandard to make a 30% cheaper product (DWH to PAW 11/25/81).

Q. Added costs for blending (CTL and Production Labor).

A. If the operation involves one pass co-grinding KY and KO, and blending and masstone evaluation, there shouldn't be any additional costs. Multiple passes and retesting will add to the cost of manufacture - about 5-10¢/lb. to handle product more than once which includes labor, material loss, energy costs.

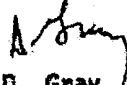
Q. Technical effort to develop blend.

A. Estimate 2 man months.

Q. How long to prepare 100 kg of each color?

A. We should do this work in the finishing area, not in the standardization mixer, a conical rotating blender which does a better mixing job than ribbon blenders. Assuming we want to pursue testing options, and developing these products, we could blend a 2-8M lb. batch in the finishing area and sample from it sometime in January.

One other way to make these products is to wet blend - shade the "Krolor" product derived from S/S Y-469-D or light yellows (or S/S YC-2/YC-3) with KO-789-D in the Krolorization process. This might result in a more reliable one pass operation, provide an outlet for substandard continuous unit product, and meet cost of manufacture/sales requirements. We can laboratory evaluate this approach in January. We will need to determine if "Krolor" product derived from S/S sales grade chrome yellow does not degrade during thermoplastic application. The Product Center should work with production and A&BA to develop costs.


D. Gray
R&D Division

DG/cjg