

Technical Department Bulletin

NUMBER : 2718

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DATE : OCTOBER 12, 1964

GOODS:SEE BELOW
(U.S. & CAN.)

SUBJECT: P&L MACHINE SYSTEM COLORANTS L, M, N, P
AND SAND NEUTRAL BASES

This bulletin cancels Technical Department Bulletin No. 2582 File: M-F-M-31, dated June 22, 1961.

At the Managers' Meeting held September 2-3, 1964, five new P&L Machine System colorants and four new Neutral Bases were adopted in order to expand the color range of the Machine System. These added items will enable users to produce 41 colors now obtainable only as Spectrum Colors, or as Spectrum Color Intermixes (and also 28 colors currently made from Extra Deep Bases). All 69 colors are classed as deep colors. The only Spectrum Color that cannot be matched in the P&L Machine Colorant system will be Spectrum Black.

Colorants

Data on the new Colorants follow:

Designation	Name	Factory Code	Pigment Type	Comments
L	Green No. 2	E64	Chrome Green	Contains lead
M	White	E65	Titanium Dioxide	
N	Orange No. 2	E66	Molybdate Orange	Contains lead
P	Yellow No. 3	E67	Chrome Yellow	Contains lead
S	Blue No. 2	E68	Phthalocyanine	Approx. 3 x strength of Colorant K

From the above, it is evident that Colorants L, N and P contain lead and, therefore, differ from the "lead-free" concept that characterizes the present Colorants in the P&L Machine System. Lead-containing pigments are not alkali-resistant and therefore cannot be successfully used in masonry paints.

Colorant M, White is needed in order to upgrade the tinting strength of the Neutral Bases so they will equal the strength of the present Extra Deep Bases. The latter are being discontinued. A more detailed discussion of this particular point occurs later in the bulletin.

Colorant S, Blue No. 2 contains the same pigment as that in Colorant K, but is three times stronger. With the added strength of Colorant S, it is possible to produce deep blues without using an excessive amount of colorant (such as would be the case if Colorant K were specified).

All new colorants contain the same type of vehicle as that in the present colorants. They have the same consistency and general physical properties.

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Neutral Bases

Neutral Bases have been adopted in four lines, listed below, together with their codes and weights per gallon:

Neutral Base	No.	Code	Wt./U.S. Gal.	Wt./Can. Gal.
<i>Cancelled</i> New Lyt-all Flow. Flat	697	E697	11 lbs. 6 oz.	13 lbs. 11 oz.
<i>Cancelled</i> Lyt-all Stippling Egg.	397	E397	11 lbs. 15 oz.	14 lbs. 5 oz.
<i>Cancelled</i> Vitralite En. Eggshell	797	E797	9 lbs. 13 oz.	11 lbs. 12 oz.
<i>Cancelled</i> Effecto Enamel	1197	E1197	9 lbs.	10 lbs. 13 oz.

Cancelled Extra Deep Bases, now available in New Lyt-all Flowing Flat, Lyt-all Stippling Eggshell and Vitralite Enamel Eggshell, will be discontinued with the advent of the Neutral Bases since the former will be superfluous. The Neutral Bases are merely weaker versions of Extra Deep Bases so that even deeper Calibrated Colors can be obtained from them than from the Extra Deep Bases. The pigment in Neutral Bases is largely inert pigment, although three of the four Neutral Bases contain a little hiding pigment.

The new Neutral Bases will be supplied in short-filled cans containing 112 U.S. fl. oz. to the U.S. gallon (140 Can. fl. oz./Can. gallon) and 28 U.S. fl. oz. to the U.S. quart (35 Can. fl. oz./Can. quart). The quantities in these short-filled cans are the same as the quantities supplied in short-filled cans of Extra Deep Bases. Short-filled cans of Light and Deep Bases contain 120 U.S. fl. oz. to the U.S. gallon (152 Can. fl. oz./Can. gallon) and 30 U.S. fl. oz. to the U.S. quart (38 Can. fl. oz./Can. quart). The extra head room in cans of Neutral Bases provides more space for Colorant. A maximum of 16 U.S. fl. oz. (20 Can. fl. oz.) of Colorant will be added to each unit gallon of Neutral Base; this coincides with 4 U.S. fl. oz. (5 Can. fl. oz.) per unit quart.

Those distributors who now buy Extra Deep Bases need add only Colorant M White and Neutral Bases in order to reproduce the 28 Calibrated Colors that they obtain from the present Extra Deep Bases. To obtain the additional 41 deep colors from the Neutral Bases, these distributors must also stock Colorants L, N, P and S.

While the new Colorants and Neutral Bases permit production of 69 Calibrated Colors, only 57 Calibrated Colors will be specified in Effecto Enamel. The omissions in Effecto Enamel are caused by Colorant C Red No. 1 in the Machine System formulas. Colorant C is unsuitable for exterior finishes.

Machine System formulas that call for Neutral Bases will contain four or less Colorants. Machine System formulas that call for Light or Deep Bases require a maximum of three Colorants.

all Vitralite Enamel Neutral Base No 797 parts are Cancelled - see Bllr MFM 40 Sept 2

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Advantages of System

- 1) Most Calibrated Colors made from Neutral Bases and Colorant M White will require lesser amounts of expensive Colorants than when they are made from Extra Deep Bases. This provides cost economies for the distributor.
- 2) Color matching will be improved. Intermixes involving the Spectrum Colors have exhibited wide color variations.
- 3) Many special deep colors that could not be matched in the past can now be made with P&L Machine Colorants.
- 4) The system permits matching all 36 of the 1965 House & Garden Colors instead of only 21 with the existing P&L Machine System.

Labeling

Neutral Bases contain no lead pigments and the caution statement on the label will indicate that they constitute no unusual hazard. However, when a distributor adds Colorants L, N or P, this situation changes. The mixture will then contain lead and should be appropriately labeled. We recommend that distributors apply sticker Label D to warn retail customers of the lead hazard. Sticker Label D reads:

WARNING!

Contains lead. Harmful if eaten.
Do not apply on toys, furniture or
interior surfaces which might be
chewed by children. Keep out of the
reach of children.

add To Formula Cards

When paint contains more than 1% of lead (as metal based on total non-volatile), the above warning is legally required in Illinois, Kansas, Baltimore and New York City. While the warning is not yet compulsory in other areas, all distributors should be urged to use the sticker label on a voluntary basis.

The 33 Calibrated Colors which contain Colorants L, N or P in sufficient amount (i.e. which introduce more than 1% of lead as metal based on total non-volatile) to require Sticker Label D are:

Antique Green
Beryl Green
Biscay Green
Bittersweet
Brick Dust
Bronze
Brunswick Green
Carnival Red
Cinnabark
Egyptian Green
Fairway Green

Flame
Juniper
Leaf Green
Lemon Peel
Midnight Sun
Ming Green
Nasturtium
Nectarine
Paprika
Persian Red
Poppy

Samovar
Sherwood Green
Spectrum Green
Spectrum Orange
Spectrum Red
Spectrum Yellow
Spun Gold
Terra Cotta
Toffee
Viola Purple
Watermelon

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Triton Green and Whirlpool Blue are also made from Colorants that contain lead pigments, but the lead level is less than 1% (as lead based on total non-volatile). Therefore, these two colors require no sticker Label D.

The remaining 34 Calibrated Colors made from Neutral Bases do not contain Colorants L, N or P.

W. H. LUTZ

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