

Technical Department Bulletin

NUMBER: 2475

FILE: M-F-M-26

LATE: January 23, 1959

GOODS: See attached
(U.S. and Canada)

SUBJECT: P&L MULTIPURPOSE TINTING COLORS

Use For tinting and shading P&L paints and enamels, except Primafil, Lacquer and Vapex Flat Wall Finish White and ready-mixed colors. May be used with Vapex Flat Wall Finish Bases. *BEARING 4 STAINED LABEL*

Color See attached table *and see page 2498*

Weight U.S. gal. 7 lbs. 15 oz. to 21 lbs. 10 oz.
Imp. gal. 9 lbs. 9 oz. to 25 lbs. 15 oz.

Consistency Soft, easy pouring, easy mixing paste.

Remarks

P&L Multipurpose Tinting Colors were adopted at the Managers' Meeting held December 3-4, 1958. The new line weds the tinting characteristics of P&L Oil Colors to the ready miscibility of P&L "A" type multipurpose Tube Colorants. P&L Oil Colors are strong and clean, but mix only with oil base and alkyd finishes. "A" type multipurpose Tube Colorants are miscible with a wider range of paints, but are made from pigment mixtures that are diluted to yield specific Calibrated Colors, when combined with Tube System Bases.

MISCIBILITY and LIMITATIONS

P&L Multipurpose Tinting Colors are made for tinting and shading P&L paints and enamels and they mix readily with most paints, including all P&L Tube System Bases. They are not miscible with Lacquer, Primafil, or Vapex Flat Wall Finish White or colors (ready-mixed). If P&L Multipurpose Tinting Colors should be used in other manufacturer's paint, it would be well to try tinting a small sample before attempting to tint a sizable quantity.

P&L Multipurpose Tinting Colors cannot be accurately described as universal coloring agents, but they are as universal as competing colorants that bear the descriptive name "universal". All such products examined by the laboratory failed to mix satisfactorily with lacquer, at least one type of emulsion paint, and at least one oil base or alkyd paint.

While P&L Multipurpose Tinting Colors are miscible with a wide range of paints, not every color is suitable for every purpose. Three colors - American Vermilion, English Rose Lake and Ultramarine Blue - are for interior use only. All other colors may be used in exterior paint, other than masonry paint. Only the following colors may be used to tint exterior masonry paint: Drop Black, Lampblack, Hansa Yellow, Palco Blue, Palco Green, Siennas, Umbers, Yellow Ochre, and Venetian Red. These and other limitations are

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COMPOSITION

The vehicle in P&L Multipurpose Tinting Colors is a chemically treated oil, to which wetting and emulsifying agents have been added in order to achieve miscibility with emulsion paint. The additives have no effect upon oil base or alkyd paints. The colors contain no water and therefore may be stored under the same conditions as oil colors. Unlike oil colors, P&L Multipurpose Tinting Colors do not skin in either full or partly full closed containers.

COLORS

The color make-up of the new line differs somewhat from the color make-up of the P&L Oil Color line. The missing colors and the reason for their absence follow:

Prussian Blue - poor alkali resistance; unsuitable for use in vinyl emulsion paint. Note: Palco Blue (alone, or with other colorants) has good alkali resistance and provides superior performance.

Cobalt Blue - Contains Prussian Blue and has same limitations.

Vandyke Brown - Unsuitable for tinting and little used for other purposes.

Bulletin Red - Superfluous, since American Vermilion produces about the same tint color.

Zinc White - Little needed; cannot be combined with colorant vehicle because of reactivity.

A new color, Hansa Yellow, has been added to the P&L Multipurpose Tinting Color line. It is an important coloring agent in our standard colors, is alkali-resistant and therefore needed for tinting exterior masonry paint, and it offers unusual permanence and color clarity.

There are no chrome greens in the new line, because chrome green contains Prussian Blue and therefore cannot be used in vinyl emulsion paint. Essentially the same basic colors as the Chrome Greens are available in the new line, under the names Green Light, Green Medium, and Green Dark.

In the new line, the initials "C.P." have been dropped before the names of Lampblack and the chrome yellows. These initials are superfluous. Years ago, oil colors were supplied in two strengths - full strength or C.P. colors, and let-down. Currently available oil colors and tinting colors are supplied only at full strength.

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In the new line, American Vermilion does not carry the suffix "New", yet it is the same color as P&L Oil Color American Vermilion (New). Since there has never been any other vermilion in the new line, the word "new" seemed unnecessary.

P&L Multipurpose Tinting Colors are not supplied in the same strength or in the same mass tone as P&L Oil Colors of the same color name. In spite of mass tone color differences, the same tint colors can be obtained with either line. The tinting strength differences between the two lines are slight.

USE

Directions for using the new line follow: "For best results, add colorant to a small portion of the paint to be tinted and blend thoroughly before working the mixture into the remainder of the paint. This procedure will insure uniform dispersal of the color and will minimize the danger of overtinting. Do not add more than 8 fluid ounces of colorant to each gallon of paint."

Unlike P&L Oil Color, addition of drier does not compensate for loss of drying that would result from the use of large quantities of colorant. If more than 8 fluid ounces of colorant are added to oil base or alkyd finishes, drying difficulties may be encountered or exposure properties may suffer.

Some idea of the color possibilities of individual colorants may be helpful.

Raw Sienna is useful for tinting white to ivory or buff; Burnt Sienna produces a warm tan. Raw Umber produces warm gray or putty color, while Burnt Umber provides somewhat warmer versions of the same color.

Lampblack produces blue grays, whereas Drop Black produces weaker, but warmer grays. When a color match requires a mixture of colors, including black, use Drop Black in preference to Lampblack in order to avoid streaking.

Palco Blue, Palco Green and Hansa Yellow are strong colors that produce exceptionally clean and bright tints.

American Vermilion produces clean pinks, but they are permanent only on interior surfaces. English Rose Lake, another interior tinting color, produces orchid and lavender tints. Venetian Red is suitable for making rose tints. Chrome Yellow Deep produces flesh and peach tints.

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Color	Code	Pigment Type	Light- fastness (Ext.) in Tint	Resistance to		Not Suitable For Use In:	
				Acid	Alkali	Ext. Pt.	Ext. Masonry Paint
- Drop Black	C129	Bone Black	E	E	E		
- Lampblack	C146	Lampblack	E	E	E		
- Ultramarine Blue	C160	Ultramarine	I	P	E	*	*
- Palco Blue	C139	Phthalo Blue	E	E	E		
- Burnt Umber	C173	Iron Oxide	E	E	E		
- Raw Umber	C172	" "	E	E	E		
- Burnt Sienna	C171	" "	E	E	E		
- Raw Sienna	C170	" "	E	E	E		
- Green Light	C154	Lead Chromate & Phthalo Blue	G	G	P		*
- Green Medium	C155		G	G	P		*
- Green Dark	C156		G	G	P		*
- Palco Green	C157	Phthalo Green	E	E	E		
- American Vermilion	C122	Organic	I	F	F	*	*
- English Rose Lake NEW (1961)	C165	"	I	G	F	*	*
- Venetian Red	C174	Iron Oxide	E	E	E		
- Chrome Yellow Light	C133	Lead Chromate	G	G	P		*
- Chrome Yellow Medium	C134		G	G	P		*
- Chrome Yellow Deep	C135		G	G	P		*
- Hansa Yellow	C157	Organic	E	E	E		
- Yellow Ochre	C175	Iron Oxide	E	E	E		

E - Excellent
 F - Fair
 G - Good
 I - For interior use only. Ultramarine Blue,
 American Vermilion and English Rose Lake
 have good interior lightfastness.
 P - Poor

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Note: Lead pigments are toxic and will discolor where
 sulfur fumes are present.