FLINT SALES DEVELOPMENT LABORATORY

STANDARD FORMULATING PRACTICE NO. FP-875

DATE OF ISSUE: 2-1-60 SUPERSEDES: FP-875 DATED: 7-28-58

I. DESCRIPTION OF LINE:

(a) General Description:

This practice includes a description of the fomulating information for the 875 Line. The 875 Line is a line of single pigment tinting lacquers which have been standardized for tinting strength. This line was developed for use with the "Lucite" Refinish Mixing Machine System.

The 875 Line lacquers plus 885-01003 are mixed by the customer in accordance with accurate mixing machine formulas (carefully developed using standardized 875 Line tintings) to yield finished colors in 882 or 886 Line quality without shading. Mixing machine formulas will be supplied to the customer by Refinish Sales to permit the customer to mix most of the current non-red and maroon refinish colors with 875 Line tinting lacquers and bases.

The pigment blending practices which follow are written, wherever possible, to insure that a color formulated within the limits will meet the normal requirements of color ranges. These are noted in the practices for the formulator and it is his responsibility to advise Sales; examples are:

(1) Bleed
(2) Alkali Spotting of Chrome
(3) Hiding Deficiencies
(4) Unusually High Cost
(5) Color Change

If it is not possible to match the desired color within the limits defined by the practices which follow, the formulator must review the final composition with the Flint Sales Development Laboratory to determine if estimated performance permits release of the formula.

NOTE: Any products developed for Refinish Sales containing lead pigments must be reported to Refinish Sales by letter or answer to investigation.

(b) References:

Letter R. E. Pike to R. B. Davis - Subject: "Lucite" Mixing Machine" dated: 6-24-58.

REASON FOR REVISION:

To add a note to the effect that Refinish Sales must be advised of any products containing lead. (Re: E. T. Breuer's letter of 1-21-60).

II. APPLICATION AND TESTING:

(a) Application:

The 875 Line is a line of standardized single pigment tinting lacquers with a viscosity of 10 - 30 seconds in a Parlin #15 Cup. 875 Line tintings are blended to yield finished colors that are applied in the same manner as 886 Line for solid colors or 882 Line for metallics.

(b) Testing:

Refer to FP-885.

III. FORMULATION:

(a) Pigmentation:

(1) Introduction:

The 875 Line is composed of the following nineteen single pigment tinting lacquers used in conjunction with 875-01003 Clear Base.

Pigment	Name	Code
W-50	Titanium Dioxide	875-050
W-224	Carbon Black	875-0224
W-50/W-224	Tinting Gray	875-0904
W-328	BON Red	875-0328
W-482	Hydrous Iron Oxide	875-0482
W-505	"Monastral" Blue	875-0505
W-582	Iron Blue	875-0582
W-608	"Sun Yellow"	875-0608
W-612	"Green Gold"	875-0612
W-622	Yellow-Toned Molybdate Orange	875-0622
W-630	Ferrite Yellow	875-0630
W-652	Red Toned Molybdate Orange	875-0652
W-679	Chrome Yellow	875-0679
W-686	Chrome Yellow Medium	875-0686
W-785	"Monastral" Green	875-0785
W-804	Indo Maroon	875-0804
W-808	"Monastral" Violet	875-0808
W-895	Iron Oxide	875-0895
W-100	Medium Aluminum	875-0100
W-1003	Clear Base	875-01003

REASON FOR REVISION:

To include 875-0328 and 875-0808 to the list of available tintings.

SUPERSEDES:

FP-875-2 dated 7-28-58.

DUP030029263

GENERAL RECOMMENDATIONS FOR DEVELOPING THE PIGMENTATION OF A NEW REFINISH MIXING MACHINE FORMULA

875 Line tinting lacquers that have been carefully tested for both hue and tinting strength are used in the development of mixing machine formulas. Great care must be exercised at all times to maintain the 875 Line tinting used in formula development at standardized strength. Thorough mixing and precautions to minimize solvent loss by evaporation must be employed in handling 875 Line tintings.

The proceedure for developing a new Refinish Mixing Machine formula is as follows:

1. Usually a manufacturing formula to match the desired color will be available in the Automotive and/or Refinish lines. Check this composition against the appropriate 875 Line pigmentation practice.

   (a) If the composition is within the limits of the practice, convert to a Refinish Mixing Machine Formula as outlined in (5) below.

   (b) If the composition does not meet the limits of the practice, redevelop in accordance with (2) below.

2. If no previous automotive or refinish formula is available a new color development will be necessary and the following procedure is recommended:

   (a) Make an approximate classification of the color i.e.; dark gray, light green, medium blue etc.

   (b) Refer to the selected classified section of the pigmentation practice to determine the preferred formulating pigmentation.

   (c) Start shading with the standardized 875 Line single pigmented tinting lacquers, most commonly white and the principal hue or black. Other things being equal, select the pigmented tinting lacquers which will require the least shading to obtain the desired color. This will result in the simplest formula and in most cases the most durable.

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(d) When an approximate shade is obtained, calculate the composition on a 100% basis.

(e) Determine whether the original classification is correct. If not, redevelop in accordance with the correct color classification section.

(f) It is not possible to cover within a practice all possible durable pigment combinations. If a combination results outside of the practice which is believed to be durable by the formulator it should be referred to the Flint Sales Development Laboratory for special consideration before issuing a formula. Likewise questionable compositions should be submitted. If a color match cannot be made, a request covering submittal of standard and summarizing pigmentations tried with exhibits, should be entered on the Flint Sales Development Laboratory for color matching assistance.

3. There are many common errors made in color development which result in excessive cost, inferior durability, and manufacturing difficulties. These errors generally result from a violation of one or more of the following basic formulating rules.

(a) <u>Keep the number of tinting lacquers to a minimum</u>. Most colors can be matched with no more than two color tinting lacquers plus black and white. It is common malpractice in color development to use a different tinting lacquer with each shading step rather than readjust the ratio of the simple fundamental initial blend, or reselect more suitable starting pigments.

(b) <u>Do not blend complementary colors</u>. Complementary colors, i.e., red and green or red toned blues and yellow toned greens, when blended together result in black. A more durable and cheaper product generally results if a black pigment is used. If one of the colors is fugitive, and the other lightfast, extreme color change results from early exposure.

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6. ISSUANCE OF FORMULAS:

A Refinish Mixing Machine formula card must be prepared for every mixing machine formula developed, and submitted to Refinish Sales. The mixing machine formula is shown in grams on an accumulative basis in order of decreasing amounts of tinting except for the clear base which is always shown last. The formula for one pint, one quart, two quart, three quarts and one gallon batch sizes are required.

A typical example of mixing machine formula card is shown below:

"LUCITE" CODE - 886-93023

"LUCITE" MIXING FORMULA - BEIGE

WT. GAL. - 8.84

Tinting Lacquer	SCALE SETTING				
	1 Pint	1 Quart	2 Quarts	3 Quarts	1 Gallon
875-050	335	670	1340	2010	2680
875-0630	346	692	1384	2076	2768
875-0904	349	698	1396	2094	2792
875-0895	350	700	1400	2100	2800
875-01003	502	1004	2008	3012	4016

NON-METALLIC BLENDING PRACTICES

The following pigment blending limits are based on an analysis of exposure results currently available. However, since we have, at the present time, only a limited background with the current vehicle compositions, these limits, are tentative and will be revised and expanded as more exposure information becomes available. The limits set up for the tinting lacquers are based on the tinting lacquer total, which does not include 875-01003 Clear Base, which may be added for hiding adjustments.

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The same general rules for color developments as set up for other lacquer lines, particularly 885 Line, apply also to the 875 Line. Since no positive committment has been made to match existing colors exactly, the greatest effort should be made to use only a minimum number of tinting lacquers for any particular color.

Since the durability of the "Lucite" Acrylic Lacquer is not nearly as dependent on P/B ratios as with other vehicles, the 875 line lacquers can be formulated with widely varying hiding levels. With few exceptions the 875 Line single pigment lacquers have been formulated at the highest hiding level likely to be required. 875-050, tinting white is now formulated at 72/100 which should be satisfactory for all colors except very clean whites. Several organic tintings are also formulated at lower hiding levels but since they are not likely to be used as mass tone colors, no difficulty is expected. Blends of lacquers usually have much higher hiding than the single components but the actual hiding cannot be predicted for the complex mixtures and so must be determined by experiment, after which 875-01003 Clear Base is added to reduce to the hiding level desired. 875-01003 Clear Base may be used in any amount as long as hiding falls within practical limits, i.e., 1.5 - 2.0 mils or less as indicated by customer experience. The success of this practice (that is of being able to formulate each color at a pigment level, no higher than that required for satisfactory hiding purposes), depends to a large extent on accurate reproducible hiding tests, which correlate with the customer's requirements. TM-352-D is the preferred method.

(2) PIGMENT BLENDING PRACTICE
<u>TINTING WHITES AND BLACKS</u>:

875-050 is the general purpose white tinting formulated at 72/100 = P/B. Because light tints based on W-50 at 72/100 show definite chalking (rating 1-2) Sales management has requested that all new developments in this range be limited to a maximum P/B of 50/100. Therefore, light tints based mainly on 875-050 must contain a minimum of 22% 875-01003 to meet this specification. If hiding limits cannot be met at this P/B, Sales should be advised and they will decide whether to (1) offer a color deviation meeting customer hiding requirements or (2) to reformulate to a high P/B ratio at a slight sacrifice in chalk resistance.

875-0224, Carbon Black, is the preferred black tinting where more than 1% is required. In light colors requiring less than 1% 875-0224, use instead 875-0904 which is a composite lacquer of 875-050 and 875-0225 in a 75/25 ratio. The use of this blend minimizes wet state color drift sometimes encountered with light tints. 875-0904 may also be used where blue tones are required.

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(3) PIGMENT BLENDING PRACTICE
GRAYS AND PASTELS:

The following lacquers may be used in formulating colors in this range.

1. Any amount of 875-050, Titanium Dioxide. (See FP-875-7 regarding P/B limit).

2. Any amount of 875-0224, Carbon Black. (If less than 1.0% of black is required use 875-0904 to minimize wet color drift). (Refer to FP-875-7).

3. Any amount of 875-0630, Ferrite Yellow.

4. Any amount of 875-0895. Iron Oxide.

5. Any amount of 875-0505, "Monastral" Blue.

6. Any amount of 875-0785, "Monastral" Green.

7. Any amount of 875-0804, Indo Maroon.

8. 875-0608 Sun Yellow, which is light fast, may be used to formulate creams and ivories in colors containing at least 45% 875-050. If 875-0608 is used as more than 55% of the formula, gloss retention will not meet the "Lucite" Acrylic Lacquer standard.

9. 875-0686 Medium Chrome Yellow may be used in blends with 875-0895 Iron Oxide and any amount of 875-050 as long as the ratio of Chrome to Oxide is no higher than 1. For higher Chrome ratios refer to "Browns". (Check for soap spotting).

10. 875-0652 or 875-0622 Molybdate Orange may be used with any amount of 875-050 but these colors may be subject to alkali spotting of which Sales must be advised. (Check soap spotting).

11. Any amount of 875-0612 Green Gold. Colors based on Green Gold tinting show some fading and must be rated 2 with up to 90% 875-050 and 3 with 90 - 100% 875-050.

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Do not tint with complementary colors as this is expensive and does not improve quality. The very light grays and pastels, when formulated with the above tinting intermediates may have little excess hiding and therefore not much 875-01003 can be added. However, the darker colors will generally show high hiding and may be reduced with 875-01003 to provide any practical level of hiding.

(4) PIGMENT BLENDING PRACTICE
BLUES:

Two blue tinting lacquers are avialble for use in the formulation of blue colors:

875-0505, "Monastral" Blue
875-0582, Iron Blue.

A. Dark Blues:

Dark blues are classified as colors based on 875-0582 containing less than 6% 875-050. The following may be used:

1. Any amount of 875-0582, Iron Blue.
2. Up to 6% of 875-050, Titanium Dioxide.
3. Any amount of 875-0224, Carbon Black.
4. Any amount of 875-0804, Indo Maroon.
5. Up to 10% of 875-0679, Chrome Yellow.
6. Any amount of 875-01003, Clear Base to provide hiding level required.

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B. Medium Blues:

Medium blues are classified as blue colors based on 875-0505, containing more than 6% of 875-050 and less than 33%. Colors in this range are formulated with blends of "Monastral" Blue and Iron Blue Lacquers, maintaining the "Monastral" Blue at 54% of the total tinting. This "Monastral" Blue/Iron Blue blend, containing from 6%-33% of 875-050, may be toned with the following tinting lacquers:

1. Any amount of 875-0224, Carbon Black.
2. Any amount of 875-0785, "Monastral" Green.
3. Any amount of 875-0804, Indo Maroon.
4. Any amount of 875-0895, Iron Oxide.
5. Any amount of 875-01003 Clear Base to provide hiding level required.

C. Light Blues:

Light Blues are classified as blue colors containing more than 33% of 875-050, Titanium Dioxide and are formulated with 875-0505. The following are the permissible tinting lacquers:

1. Up to 68% of 875-050, Titanium Dioxide.
2. Any amount of 875-0224, Carbon Black. (If less than 1.0% of black is required use 875-0904 to minimize wet color drift.) Refer to FP-875-7.
3. Any amount of 875-0225, Lamp Black.
4. Any amount of 875-0785, "Monastral" Green.
5. Any amount of 875-0804, Indo Maroon.
6. Any amount of 875-0630, Ferrite Yellow.
7. Any amount of 875-0895, Iron Oxide.
8. Any amount of 875-01003, Clear Base to provide the minimum hiding level.
9. If 875-0612 is required, refer to the Flint Sales Development Laboratory.

REASON FOR REVISION: To show correct limit for 875-050.

SUPERSEDES: FP-875-10, dated 7-28-58.

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(5) PIGMENT BLENDING PRACTICE
GREENS:

A. Dark Greens:

Dark greens are based on blends of Iron Blue 875-0582 and Chrome Yellow, 885-0679. These colors develop some fading and must be rated 2 for color fastness. The basic blend may contain up to 36% of 875-0679, but this 36/64 ratio of 875-0679/875-0582 must not be exceeded. The following tinting lacquers may be used:

1. Up to 6% of 875-050, Titanium Dioxide.
2. Any amount of 875-0224, Carbon Black.
3. Any portion of 875-0679, Chrome Yellow may be replaced with 875-0686 Chrome Yellow Medium.
4. Any amount of 875-01003, Clear Base for hiding adjustment.

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B. Medium and Light Greens:

The preferred way of formulating medium and light green colors is from blends of 875-0630 and 875-0505. Where additional brightness is required use 875-0785 in place of 875-0505.

Medium and light green tints may be formulated with the following tinting lacquers:

1. 6% to 85% of 875-050, Titanium Dioxide.
2. Any amount of 875-0630, Ferrite Yellow.
3. Any amount of 875-0505, "Monastral" Blue, Red Shade.
4. Any amount of 875-0224, Carbon Black. (If less than 1.0% of black is required use 875-0904 to minimize wet color drift.) Refer to FP-875-7.
5. Any amount of 875-0785, "Monastral" Green.
6. Any amount of 875-01003 Clear Base to provide the hiding level required.

If additional color brightness is required the following tintings may be used:

7. Any amount of 875-0612, Lithosol Yellow.
8. Any amount of 875-0679, Chrome Yellow.
9. Any amount of 875-0686, Chrome Yellow. Medium.

NOTE: Sales must be advised of the alkali spotting if any colors are formulated with 875-0679 or 875-0686.

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FP-875-13
7-28-58

(6) PIGMENT BLENDING PRACTICE
BROWNS:

The following pigments may be blended for formulating colors in this range;

1. Up to 67% of 875-050, Titanium Dioxide.
2. Any amount of 875-0224, Carbon Black.
3. Any amount of 875-0630, Ferrite Yellow.
4. Any amount of 875-0895, Iron Oxide.
5. Any amount of 875-0804, Indo Maroon.
6. Any amount of 875-0652 or 875-0622 and/or 875-0686. (Maybe subject to alkali spotting. Advise Sales).
7. Any amount of 875-01003 Clear Base to provide the minimum hiding.

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(7) PIGMENT BLENDING PRACTICE
YELLOWS AND ORANGES:

Colors in this range are based on Molybdate Orange 875-0652 or 875-0622, and Chrome Yellow, 875-0686 and or blends of these pigments. At the higher Chrome levels these pigments show characteristic darkening but this is reduced by blending with 875-0630, 875-0224, 875-050, and 875-0895. Colors yellower than W-686 may be made with W-679, Chrome Yellow, but this pigment has poorest color stability and its use should be held to a minimum. The following toning agents may be used:

1. Up to 55% of 875-050, Titanium Dioxide.
2. Any amount of 875-0224, Carbon Black.
3. Any amount of 875-0895, Iron Oxide.
4. Any amount of 875-0785, "Monastral" Green.

Any amount of 875-01003 Clear Base may be used in the above blends, but usually this range will not have much excess hiding.

These colors may be subject to alkali spotting. Advise Sales.

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(7A) PIGMENT BLENDING PRACTICE
REDS:

Non-Bleeding Light to Medium Dark Reds

Colors in this range should be made from blends of 875-0652 Molybdate Orange/and 875-0808 "Monastral" Violet.

The following tinting lacquers may be used in toning these blends:

1. Up to 15% of 875-0328, BON Red.
2. Up to 15% of 875-050, Titanium Dioxide.
3. Any amount of 875-0224, Carbon Black.
4. Any amount of 875-0895, Iron Oxide.
5. Any amount of 875-0630, Ferrite Yellow.

If the color cannot be matched with the above tintings, the following may be used.

6. Any amount of 875-0328, BON Red.

Colors containing more than 15% of 875-0328 BON Red are subject to humidity color drift and generally have hiding poorer than 2.0 mils B/W. Sales should be advised that these colors are subject to humidity color drift.

Any amount of 875-01003 Clear Base may be used in the above blends, but usually this range will not have much excess hiding.

REASON FOR ISSUE:

To include a new page for the formulation of Reds.

SUPERSEDES:

FP-875-14A NEW.

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METALLIC BLENDING PRACTICE

875 Line metallics are formulated by blending 875 Line single pigment tinting lacquers with 875 Line metallic tinting lacquers. Hiding adjustment is made by adding 875-01003 Clear Base to obtain 2.0 ± 0.1 mils dry film hiding over black/white contrast.

1. Shade to the approximate color with the required single pigment lacquers.
2. Refer to Section III-a to determine if pigmentation conforms to practice.
3. Run a dry film hiding (TM-352-D).
4. Refer to nomograph (FP-875-17) to determine amount of 875-01003 required for the desired hiding.
5. Make the 875-01003 Clear Base addition.
6. Check for color - usually only minor shading adjustments are necessary.
7. Make a final hiding check (TM-352-D) and allocate to 100% basis.

EXAMPLE:

	Code	Parts	100% Basis	
Step #1-3	875-0100	400	47.6	Shade to color. Refer pigmentation. Hiding TM-352-D = 0.9 mils. (hypothetical)
	875-0485	380	45.0	
	875-0224	56	6.8	
	875-050	5	0.6	
		841	100.0%	

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EXAMPLE: (Con't)

	Code	Parts	
	875-01003	555	From nomograph 1.7 mils desired; 66 parts 875-01003 required per 100 parts color or $\frac{841}{100} \times 66 = 555$
Step #4-5			
	Total	1396	
	875-0224	2	Check color. Final shading adjustment. Hiding check = 1.6 mils.
Step #6			
	Total	1398	

	875-0100	28.6	Allocated to 100% Basis:
	875-0485	27.1	
Step #7	875-0224	4.1	
	875-050	.4	
	875-01003	39.8	
		100.0%	

All formulas must carry sufficient shading materials to allow adequate manufacturing tolerance.

A minimum 0.5% 875-0224 and 0.1% 875-050 are required to insure reproducibility.

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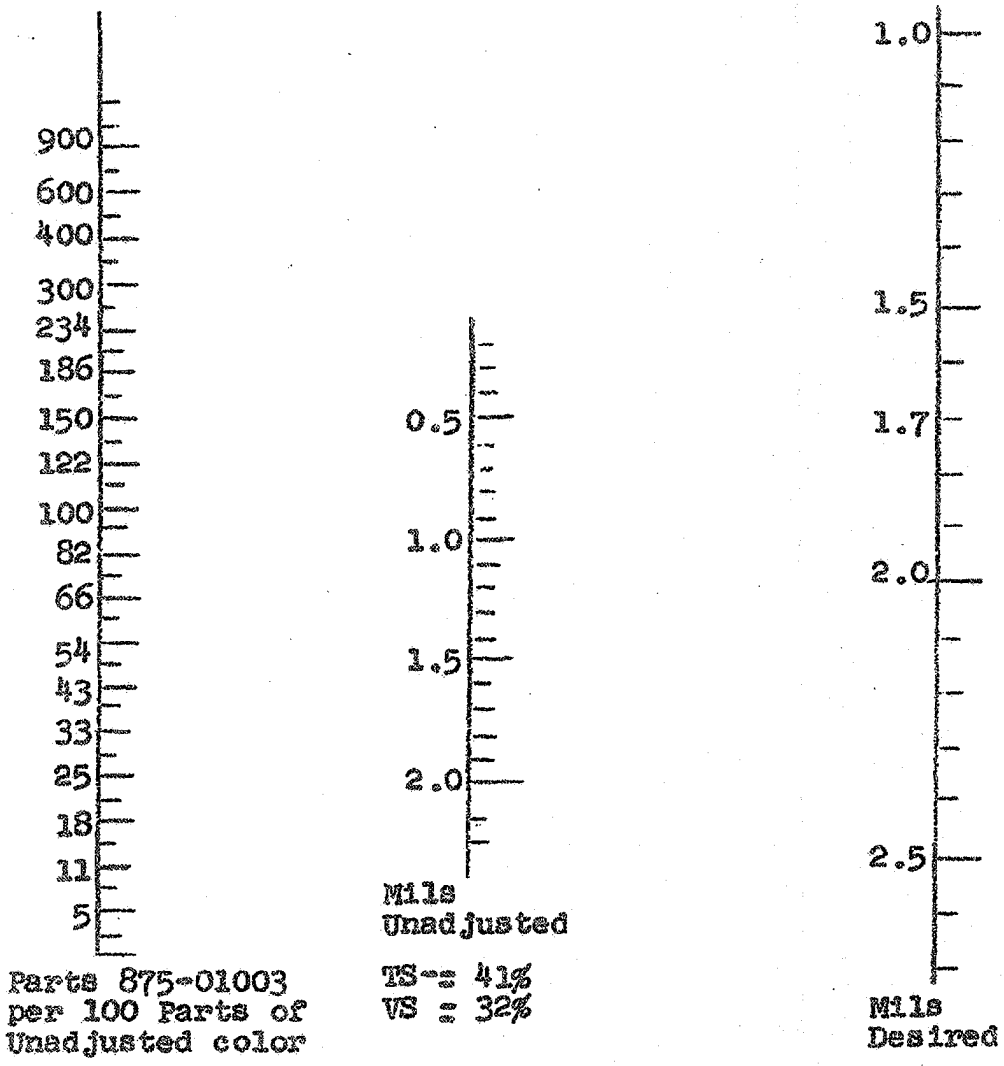
FP-875-17
7-28-57

875 LINE NOMOGRAPH FOR DRY FILM HIDING ADJUSTMENT



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(8) PIGMENT BLENDING PRACTICE
ALUMINUM TINTING LACQUERS:

875-0100 medium aluminum is the only aluminum tinting lacquer available for use in the 875 Line.

This tinting lacquer is formulated at a metal-to-binder ratio of 10/100 and as such, shows very high hiding which allows considerable reduction with 875-01003 Clear Base for most colors. The tinting limits set up in this practice are based on the tinting lacquer total and any 875-01003 Clear Base should be excluded when calculating percentages.

(9) PIGMENT BLENDING PRACTICE
GRAYS, PASTELS AND BROWNS:

The following tinting lacquers may be blended for the formulation of colors in this range:

1. Any amount of 875-0100 Aluminum.
2. Any amount of 875-050, Titanium Dioxide.
3. Any amount of 875-0224, Carbon Black. (In colors using less than 1% of 875-0224 and more than 5% of 875-050 use 875-0904 in place of 875-0224 to minimize wet color drift. Refer to FP-875-7).
4. Any amount of 875-0505, "Monastral" Blue.
5. Any amount of 875-0785, "Monastral" Green.
6. Any amount of 875-0804, Indo Maroon.
7. Any amount of 875-0482, Auric Brown tinting 875-0482 is formulated at lower solids than the average "Lucite" tinting.
8. Any amount of 875-0895, Iron Oxide and 875-0630 Ferrite Yellow may be used; in colors using 875-050, to reduce two-tone and/or improve working properties, blends of 875-0895 and 875-0630 may be used in place of 875-0482 at a considerable economic advantage.
9. Any amount of 875-01003 Clear Base to reduce to the minimum required hiding level.

REASON FOR REVISION:

To delete reference to 875-080 since only 875-0100 is available in 875 Line.

SUPERSEDES:

FP-875-18 dated 7-28-58.

DUP030029279

(10) PIGMENT BLENDING PRACTICE
DARK BLUES:

Although there is no limit or restrictions on 875-0505 "Monastral" Blue, and aluminum blends, for economic reasons, the dark blue colors should be formulated with Iron Blue 875-0582. However, the use of Iron Blue in "Lucite" Acrylic lacquer is restricted and the limits are not clearly defined at the present time. Therefore, colors in this range, containing less than 10% aluminum, should be referred to the Flint Laboratory for formulation on the most economical basis.

(11) PIGMENT BLENDING PRACTICE
MEDIUM LIGHT BLUES AND GREENS:

Colors in this range are formulated with blends of the following pigments:

1. Any amount of 875-0100 Aluminum.
2. Any amount of 875-0505, "Monastral" Blue.
3. Any amount of 875-0785, "Monastral" Green.
4. Any amount of 875-0224, Carbon Black. (In colors using less than 1% of 875-0224 and more than 5% of 875-050 use 887-0904 in place of 875-0224 to minimize wet color drift. Refer to FP-875-7).
5. Any amount of 875-0630, Ferrite Yellow.
6. Any amount of 875-0482, Auric Brown tinting. 875-0482 is formulated at lower solids than the average "Lucite" tinting. When B-507 is used, reduce the standard amount (either 28% or 35% as the case may be) by 0.14% for each percent of 875-0482 used in the formula.
7. Any amount of 875-0804, Indo Maroon.
8. Any amount of 875-050, Titanium Dioxide.
9. Any amount of 875-0612, Green Gold, except in colors containing more than 60% aluminum and/or white which must be referred for formulation to the Flint Laboratory. Also do not use 875-0612 with 875-0505.
10. Any amount of 875-01003 Clear Base to reduce to minimum hiding requirements.

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(13) PIGMENT BLENDING PRACTICE
REDS:

Non-Bleeding Light to Medium Dark Reds

Colors in this range should be made from blends of 875-0652 Molybdate Orange/and 875-0808 "Monastral" Violet.

The following tinting lacquers may be used in toning these blends:

1. Up to 15% of 875-0328, BON Red.
2. Up to 15% of 875-050, Titanium Dioxide.
3. Any amount of 875-0224, Carbon Black.
4. Any amount of 875-0895, Iron Oxide.
5. Any amount of 875-0630, Ferrite Yellow.

If color cannot be matched with the above tintings, the following may be used.

6. Any amount of 875-0328, BON Red.

Colors containing more than 15% of 875-0328 BON Red are subject to humidity color drift and generally have hiding poorer than 2.0 mils B/W. Sales should be advised that these colors are subject to humidity color drift.

Any amount of 875-01003 Clear Base may be used in the above blends, but usually this range will not have much excess hiding.

REASON FOR REVISION:

To include a new page for the formulation of Reds.

SUPERSEDES: FP-875-19A NEW.

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(12) PIGMENT BLENDING PRACTICE
COMPLEMENTARY BLENDING OF METALLICS:

Since the "Lucite" Acrylic Lacquer vehicle places no restriction on the amount of aluminum or P/B ratios within practical ranges, complementary blending is not required to make light transparent grays and pastel colors. Instead, use only the less expensive conventional blending of the aluminum, white and black, plus required tinting lacquers, to obtain any lightness level desired.

(b) Vehicle:

The vehicle of 875 Line is based on 71% "Lucite" Acrylic lacquer resin solids and 29% Plasticizer, H-654.

(c) Modifying Agents:

The "Lucite" Acrylic lacquer vehicle is modified by the addition of W-1003, to prevent crazing. All 875 Line lacquers carry the required amount which is 6 parts of vehicle solids. 875-01003 is simply a clear base with 6 parts W-1003 per 100 vehicle solids, which provides a means for lowering P/B without changing the Anti crazing agent content.

All "Lucite" lacquer tintings are doped with 0.016% Silicone, based on lacquer solids, to minimize cratering.

(d) Thinners:

37666

39055 retarder (mainly used on production lines to control overspray melt-in).

IV. FORMULATING TABLES:

None

V. MANUFACTURING PROBLEMS:

Tinting strength of the 875 Line lacquers should be controlled as closely as possible. Refer to TM-71-F for detailed procedure on testing and adjusting tinting strength of "Lucite" single pigmented lacquers.

VI. REASON FOR ISSUE:

Required for development of formulas for the "Interim" Refinish "Lucite" Acrylic Lacquer mixing machine for Fleet colors.

FLINT LABORATORY

R. A. POTTS

DUP030029282