

DIRECTIONS FOR TEST NO. 14-43-41

SUBJECT: Color of Aroclor on N.P.A. Scale

METHOD: Hellige Pocket Comparator

Scope

The method is applicable to Aroclors 4465, 5460, or others having N.P.A. colors in the range 1 to 5.

Procedure

Warm the Aroclor is necessary to obtain pouring consistency. Fill the test cup of the Hellige Pocket Comparator, Model 605, with Aroclor, insert cup in the comparator, and compare against the color disc (No. 6200-50, Lubricating Oils and Petrolatum) which has N.P.A. colors from 1 to 5 in one-half steps. Report color to nearest 1/4. Clean the test cup with Motosolve with final rinse of benzol.

A.S.T.M. color numbers coincide with National Petroleum Association color number (1915). The relation of the N.P.A. color numbers to other color scales is tabulated below:

NPA Color		Union		Lovibond Analysis		
Nos. (1915)	NPA Names	Petro- leum Co.	ASTM Color Nos.	Red 200	Yellow 510	Blue 1180
1/4	—	—	—	—	0.6	—
1/2	—	—	—	—	1.1	—
3/4	—	—	—	—	1.7	—
1	Lily white	G	1	0.12	2.4	—
1-1/2	Cream white	H	1.5	0.60	8.0	—
2	Extra pale	I	2	2.5	26.0	—
2-1/2	Extra lemon pale	J	2.5	4.6	27.0	—
3	Lemon pale	K	3	6.9	32.0	—
—	Extra orange	L	3.5	9.4	35.0	—
4	Orange pale	M	4	14.0	50.0	.55
4-1/2	Pale	N	4.5	21.0	56.0	.55
5	Light red	O	5	35.0	93.0	—
6	Dark red	P	6	60.0	60.0	.55
Q	Claret red	Q	7	60.0	66.0	1.80
—	—	R	8	166.0	64.0	—

ABG-p
9/25/41

DSW 330697

STLCOPCB4077341

Test No. 14-10-41 - Specific Gravity of Liquid Aroclors

Example: Assume readings as follows

APR 1964

Sp. Gr. at 65/15.5°C - $\frac{1.5025}{.9992}$ - Water - 1.5037

Zero

1.5025

9992

Report to third decimal place, e.g. 1.504.

Notes

1. Since the reading in water is constant, provided there are no errors in weights or Westphal, its determination at monthly intervals should suffice.

2. The weights used with the balance should be checked monthly by weighing on an analytical balance.

3. The exact adjustment of the liquid to the test temperature is important. Do not cool too rapidly. Stir frequently enough to maintain a uniform temperature thruout.

4. Instead of adjusting exactly to test temperature, readings may be taken at one or more temperatures near that specified and corrected if the temperature coefficient is known.

TEMPERATURE COEFFICIENTS (REF: PLANT B)

<u>Arcelor</u>	<u>Correction for 1°C.</u>	<u>Range of Application</u>
1142	.0009	50 - 105°C.
1148	.0009	50 - 100
1154	.00095	55 - 105
1160	.0010	75 - 130
1162	.0010	85 - 120

ABC-P
10/2/41

DSW 330698