

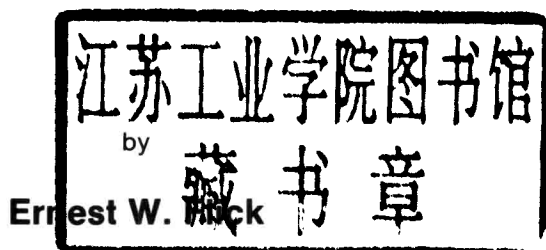
**Printing Ink
and
Overprint Varnish
Formulations
Recent Developments**

Ernest W. Flick

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PRINTING INK AND OVERPRINT VARNISH FORMULATIONS

Recent Developments



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Preface

This is a collection of more than 300 formulations for printing inks, overprint varnishes, and related products. The data represent selections from manufacturers' descriptions made at no cost to, nor influence from, the makers or distributors of these materials. Only the most recent formulas have been included. It is believed that all of the trademarked raw materials listed here are currently available, which will be of utmost interest to readers concerned with raw material discontinuances.

The formulations in this book are divided into the following 3 sections:

- Section I Printing Inks
- Section II Overprint Varnishes
- Section III Miscellaneous

In addition to the above, there are two other sections which will be helpful to the reader:

- Section IV A chemical trademark section where most tradenamed raw materials included in the book are listed with a chemical description and the supplier's name. The specification which each raw material meets are included, if applicable.
- Section V Main office addresses and phone numbers, including 800 numbers, of the suppliers of trademarked raw materials, some of which are not available in the usual reference books.

The book lists the following product information, as available, in the manufacturer's own words:

1. Description of end use.

2. Base chemical and modifier(s) in the heading. The first chemical listed is the base. The chemicals listed after the first slash are the modifiers.
3. The formulas include the following:
 - A. A listing of each raw material contained.
 - B. The amount of each raw material included in the formula, as presented by the supplier.
 - C. Any description of the formula.
 - D. The formula source, which is the company or organization, that supplied the formula. A secondary source may be the originating company and/or the primary source's publication title, or both. A formula number is included, if applicable.

An End Use Index has also been included in the book for rapid location of the various types of ink and varnish formulations.

August, 1990

Ernest W. Flick

NOTICE

To the best of our knowledge the information in this publication is accurate; however, the Publisher does not assume any responsibility for the accuracy or completeness of, or consequences arising from, such information. This industrial guide does not purport to contain detailed user instructions, and by its range and scope could not possibly do so. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Publisher.

In some cases ink and varnish formulations may contain potentially toxic materials, and therefore due caution should be exercised and expert advice obtained when handling these materials. Final determination of the suitability of any information or product for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. We strongly recommend that users seek and adhere to a manufacturer's or supplier's current instructions for handling each material they use.

The Author and Publisher have used their best efforts to include only the most recent data available. The reader is cautioned to consult the supplier in case of questions regarding current availability.

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Section I

Printing Inks

CORRUGATED INK-1 (ACRYLIC)

RAW MATERIALS % By Weight

Grind	
Phthalo Blue (BT297D)	30
Water#	30
JONCRYL 91	38
Isopropyl Alcohol	2
Finished Ink:	
Grind	50
JONCRYL 91	17
Water#	33

Initial Viscosity, #2 Zahn: 24.1

pH: 7.9

1 Week #2 Zahn: 23.9

CORRUGATED INK-2 (ACRYLIC)

RAW MATERIALS % By Weight

Grind	
Carbon Black (Raven 890)	25
Water#	41
JONCRYL 91	32
Isopropyl Alcohol	2
Finished Ink:	
Grind	60
JONCRYL 91	12
Water#	28

Initial Viscosity, #2 Zahn: 24.6

pH: 8.1

1 Week #2 Zahn: 24.6

JONCRYL 91'S unique colloidal technology allows the finished ink to be highly dilutable by water, while still maintaining proper viscosity and printing characteristics.

SOURCE: S.C. Johnson & Son, Inc.: JONCRYL 91: Suggested Formulations

CORRUGATED INK-3 (ACRYLIC)

RAW MATERIALS	% By Weight
Grind	
Barium Lithol (20-4200 SW)	30
Water#	30
JONCRYL 91	38
Isopropyl Alcohol	2
Finished Ink:	
Grind	50
JONCRYL 91	15
Water#	35
Initial Viscosity, #2 Zahn: 21.8	
pH: 7.75	
1 Week #2 Zahn: 23.1	

CORRUGATED INK (ACRYLIC)

RAW MATERIALS	% By Weight
Base Grind	
Phthalo Blue	35.0
Resin Solution##	28.0
Isopropyl Alcohol	2.0
Water	35.0
Letdown	
Base Grind	43.0
Water#	42.0
JONCRYL 91	15.0

Finished Inks Properties:

Initial Viscosity/sec. (#2 Zahn): 24.1
 One-Week Viscosity/sec. (#2 Zahn): 23.9
 pH: 7.9

#JONCRYL 91's unique colloidal technology allows the finished ink to be highly dilutable by water, while still maintaining proper viscosity and printing characteristics.

##JONCRYL 67 30% solution in ammonia/water.

SOURCE: S.C. Johnson & Son, Inc.: JONCRYL 91: Suggested Formulations

CORRUGATED INK(ACRYLIC)

RAW MATERIAL % By Weight

Chip Solution/Dispersion	
Penn Color Acroverse Black	41.0
Water	49.5
Ammonia	6.0
Isopropyl Alcohol	3.5

Finished Ink	
Chip Solution/Dispersion	69.0
JONCRYL 91	6.0
Water	25.0

Initial Viscosity/sec. (#2 Zahn): 20.3
 pH: 8.3
 One-Week Viscosity/sec. (#2 Zahn): 20.6

JONCRYL 91 as letdown for pigmented chips.

CORRUGATED INK(ACRYLIC)

RAW MATERIALS % By Weight

Flexiverse Red 1135	50.0
JONCRYL 91	25.0
Water	25.0

Initial Viscosity/sec. (#2 Zahn): 23.0
 pH: 8.3
 One-Week Viscosity/sec. (#2 Zahn): 33.0

JONCRYL 91 as letdown for predispersed pigment.

SOURCE: S.C. Johnson & Son, Inc.: JONCRYL 91: Suggested Formulations

MINERAL OIL BASED NEWS INK(OILS/RESIN)

PRODUCT Parts by Weight

Carbon Black (Elftex 115 by Cabot)	17-20
Mineral Oil (60 SSU @ 100F)	20-24
Mineral Oil (750 SSU @ 100F)	36-32
Resin (NEVCHEM 140 or LX-1082,280)	27-24

SOURCE: Neville Chemical Co.: Product Information: Suggested Formulations