

# Modern Technology of Printing & Writing Inks (with Formulae & Processes) 2nd Revised Edition

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Ink is a liquid or paste that contains pigments or dyes and is used to colour a surface to produce an image, text, or design. Ink is used for drawing or writing with a pen, brush, or quill. Thicker inks, in paste form, are used extensively in letterpress and lithographic printing. Ink can be a complex medium, composed of solvents, pigments, dyes, resins, lubricants, solubilizers, surfactants, particulate matter, fluorescents, and other materials. The components of inks serve many purposes; the ink's carrier, colorants, and other additives affect the flow and thickness of the ink and its appearance when dry.

India is among the fast growing printing & writing ink markets globally spurred by the rapid expansion of the domestic print markets. Backed by a strong demand from key end user segments such as package printing, newsprint, publishing and other commercial printing, the printing ink market in India has registered strong growth over the years. The printing ink industry is fragmented with hundreds of manufacturers and a large number of players in the unorganised sector.

Printing ink sector in India witnessed a growth of around 7.5% per annum during the Past years. Printed packaging accounts for around 27% of the demand for printing inks in India followed by newspapers at 20%. Commercial printing/promotional and printed advertising together account for around 19% of the demand. Other key end user segments for printing inks include books and stationery. With the print sector forecast to grow at around 8% per annum, in coming years, printing ink segment is expected to grow strongly.

This handbook is designed for use by everyone engaged in the printing & writing ink industry and the associated industries. It provides all the information required by the ink technical for the day-to-day formulation of inks. It supplies the details of the manufacturing methods, including large-scale production, and gives guidance on achieving quality assessment and total quality management specifications. The book also describes properties and uses of the raw materials used in the formulation of printing & writing inks.

The major content of the book are the colour and colour matching, raw materials, printing inks, ink formulations, applications problems, writing inks, project profile, how to estimate, order & handle ink, testing of writing & miscellaneous inks, testing of printing inks, rollers, waterborne inkjet inks. The book contains addresses of raw material suppliers, plant & machinery suppliers with their Photographs.

This book will be a mile stone for the entrepreneurs, existing units, libraries etc.

## 1. INTRODUCTION

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The gloss of printing inks

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Calmium Red  
BON Arylamide Red, Naphthol Red FGR  
Quinacridone MagentaY  
Naphthol Carmine FBB  
Copper Ferrocyanide Pink  
Naphthol Red F5RK  
Benzimidazolone Carmine HF3C  
Naphthol Rubine F6B  
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Paper wrapper inks  
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Metal containers  
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Inks for Plastic containers  
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Process inks  
Uv and Electron Beam curing Inks  
Inks for day offset application on plastics and metal  
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Electrostatic imaging  
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Ghosting, Shadow, Streaks, and Slurs  
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Standard Writing ink

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Coloured marking Inks ;  
Ink for Multiple Copies purposes  
Hectograph Inks;  
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Inks or Carbon Papers  
Hectograph Carbon Papers  
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## About NIIR

**NIIR PROJECT CONSULTANCY SERVICES (NPCS)** is a reliable name in the industrial world for offering integrated technical consultancy services. NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our various services are: Detailed Project Report, Business Plan for Manufacturing Plant, Start-up Ideas, Business Ideas for Entrepreneurs, Start up Business Opportunities, entrepreneurship projects, Successful Business Plan, Industry Trends, Market Research, Manufacturing Process, Machinery, Raw Materials, project report, Cost and Revenue, Pre-feasibility study for Profitable Manufacturing Business, Project Identification, Project Feasibility and Market Study, Identification of Profitable Industrial Project Opportunities, Business Opportunities, Investment Opportunities for Most Profitable Business in India, Manufacturing Business Ideas, Preparation of Project Profile, Pre-Investment and Pre-Feasibility Study, Market Research Study, Preparation of Techno-Economic Feasibility Report, Identification and Section of Plant, Process, Equipment, General Guidance, Startup Help, Technical and Commercial Counseling for setting up new industrial project and Most Profitable Small Scale Business.

NPCS also publishes varies process technology, technical, reference, self employment and startup books, directory, business and industry database, bankable detailed project report, market research report on various industries, small scale industry and profit making business. Besides being used by manufacturers, industrialists and entrepreneurs, our publications are also used by professionals including project engineers, information services bureau, consultants and project consultancy firms as one of the input in their research.

Our Detailed Project report aims at providing all the critical data required by any entrepreneur vying to venture into Project. While expanding a current business or while venturing into new

business, entrepreneurs are often faced with the dilemma of zeroing in on a suitable product/line.

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