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The Complete Technology Book on Printing Inks

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Description

The beginning of ink making is something of a mystery. It is certain however, that the development of the art of writing preceded the invention of ink by almost a thousand

years. Today inks are divided into two classes: printing inks and writing inks. Printing is a process for reproducing text and images, typically with ink on paper using a printing press. It is often carried out as a large scale industrial process, and is an essential part of publishing and transaction printing. Different techniques and printing equipments are employed for each printing practices. The demand for innovative printing practices has been on a high in recent times. There are various kinds of printing processes; lithographic process, the gravure process, offset printing process etc. different types of inks derived from different processes are ball pen inks, bleachable inks, fluorescent inks, fast drying ink, automatic press inks, rotary press inks, coated paper inks, planographic inks, lithographic inks, offset tin printing inks etc. The Printing Ink industries have grown significantly during the last decade and this industry is characterized by exceeding high margin profit. As we read newspapers, magazines, and books on a daily basis therefore inks are found in almost every aspect of human activity. The worldwide printing inks market is projected to register a CAGR of about 2.8%. Printing inks market embodies the strength of the global as well as regional economies. With its high correlation to a national GDP, the printing inks market is cyclical in nature, with economic ups and downs amplifying the demand patterns. The world printing inks market is projected to grow moderately over the next couple of years.

The major contents of the book are pigment in the printing inks, manufacturing of printing inks, storage and testing of raw materials, planographic inks, lithographic inks, factors effecting visual appearance of ink film, factors effecting visual appearance of ink film, method of mixing metallic powder and varnish, the principle of reproducing photographs by printing methods, etc.

In this book an attempt has been made to bring together the useful manner as possible the fundamental Principles of ink making. The book contains formulae processes and other relevant information of the manufacturing of different types of printing inks.

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S.B.P. Spirit

Petroleum Spirit, Ligroin Or Gasoline

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Toluene, C₆H₅CH₃, Methyl Benzene

Solvent Naphthas

Light Naphtha

Heavy Naphtha or Aromatic White Spirit (A.W.S.)

Terpene Solvents

Turpentine

Oxidized Turpentine

Dipentene, C₁₀H₁₆

Pine Oils

Hydrogenated Naphthalene Solvents

Decalin, C₁₀H₁₈

Tetralin C₁₀H₁₂

Alcohol Solvents

Ethanol, Ethyl Alcohol, CH₃CH₂OH

Isopropanol

Butanol CH₃CH₂CH₂CH₂OH

Methyl Isobutyl Carbinol (M.I.B.C.)

Diacetone Alcohol Or Dical

Benzyl Alcohol C₆H₅CH₂OH

Glycol Solvents

Ethylene Glycol HO.CH₂CH₂OH (E.g.)

Diethylene Glycol HO.CH₂CH₂O.CH₂CH₂OH. (D.E.G.)

Propylene Glycol CH₃.CHOH. CH₂OH (P.G.)

Dipropylene Glycol HO. (CH₂)₃.O. (CH₂)₃OH (D.P.G.)

Hexylene Glycol, 2 Methyl, (2, 4) Pentanediol (H.G.)

Ethers

Di-ethyl Ether, C₂H₅.O. C₂H₅

The Ether Alcohols or Cellosolves

Methyl Cellosolve / CH₃.O.(CH₂)₂.OH

Cellosolve, Ethylene Glycol Monoethyl Ether

Butyl Cellosolve CH₃.(CH₂)₃.O.(CH₂)₂OH

The Carbitols

Carbitol

Methyl Carbitol

Ketones

Acetone

Methyl Ethyl Ketone (M.E.K.) CH₃.CO. C₂H₅

Methyl Isobutyl Ketone (M.i.b.k.)

Isophorone, C₉H₁₄O

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About Niir

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