ABSTRAK

Fiqri Suwindra (2020) : Solubility of yellow and Black Inorganik Pigments in Water-Oil Microemulsion Gelation From Water Systems, Anionic Surfactants (SDS) and Pentanol for Ballpoint Inks.

Research on the solubility of yellow and black inorganic pigments in water-in-oil microemulsion gelation from water systems, anionic surfactant sodium dodecyl sulfate (SDS) and pentanol for ballpoint inks has been carried out. The purpose of this research is to prepare gelation of water-in-oil microemulsion, yellow pigment (CdS) and black (CuS) preparation to be used as inorganic yellow and black pigment, determine solubility of yellow and black anoganic pigment in water-in-oil microemulsion gelation, and apply it for ballpoint inks. This type of research is an experimental study in which this experimental study examines: solubility of yellow and black inorganic pigments in gelation, determines density, determines bias index, determines stability of yellow and black inorganic pigments, gelation preparation is done by the sol sol gel where the sol gel method is carried out at low temperatures, the resulting gel is in the form of semi-solid and has the ability to dissolve inorganic dyes greater than microemulsion and liquid crystal. The solubility of yellow and black inorganic pigments in microemulsion gelation of water in test oil using ABBE refractometer , yes where the dissolved amount of black inorganic pigment is 0.096gram while the amount of dissolved yellow inorganic pigment is 0.089gram. To see the density of inorganic pigments used, density measurements were taken. The amount of density produced for black inorganic pigments is 0.9986 gram while the amount of yellow inorganic pigment density is 0.9158 grams. For the stability of yellow and black inorganic pigments where the stability of yellow and black inorganic pigments last 7 days. Then the refractive index measurements were carried out using the ABBE refractometer. The results of bias index measurement can be related to the solubility of inorganic pigments, the greater the solubility of inorganic pigments, the higher the refractive index value. The refractive index value of the microemulsion sol was added to the black inorganic pigment of 1.3942 while the refractive index value of the microemulsion sol was added to the yellow inorganic pigment of 1.3892

Kata Kunci : Gel Sol, Solubility, Density, Bias Index, Yellow and Black Pigments.