Sintesis dan karakterisasi polimer suspensi poli[stirena-ko-(etil akrilat)] terstabilisasi poli (vinil alkohol) dengan metode radikal bebas menggunakan inisiator benzoil peroksida = Synthesis and characterization polymer suspension poly styrene ko ethyl acrylate with poly vinyl alcohol as stabilizer by free radical method and benzoil peroxide as initiator

Hadi Kurniawan, author

Abstrak

[ABSTRAK
Stabilisasi tanah diperlukan untuk mendapatkan tanah yang memiliki sifat mekanik yang baik. Polimer suspensi poli[stirena-ko-(etil akrilat)] dapat digunakan sebagai stabilisator tanah. Pada skripsi ini dipelajari pengaruh konsentrasi poli(vinil alkohol) (PVA), stirena, etil akrilat, dan benzoil peroksida (BPO) terhadap sifat polimer suspensi poli[stirena-ko-(etil akrilat)]. Semua reaksi dilaksanakan melalui teknik Batch. Konsentrasi PVA optimum didapatkan pada konsentrasi 10% dari total berat monomer. Suspensi yang terbentuk terdiri dari dua jenis kopolimer, yaitu kopolimer kaya stirena dan kopolimer kaya etil akrilat yang teridentifikasi dari nilai Tg yang dihasilkan. Peningkatan konsentrasi BPO menyebabkan kenaikan kandungan padat dan ukuran partikel sehingga meningkatkan viskositas suspensi.
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ABSTRACT
Soil stabilization needed to achieve soil with good mechanical characteristic. Polymer suspension of poly[styrene-ko-(ethyl acrylate)] can be used as soil stabilizer. In this study, effect of poly(vinyl alcohol) (PVA), styrene, ethyl acrylate, and benzoyl peroxide (BPO) to the characteristic of polymer suspension poly[styrene-ko-(ethyl acrylate)] observed by varying their concentration. All reactions done under Batch Technique. Optimum concentration of PVA is 10% weight of total monomer weigth. There are two kinds of copolymer synthesized: styrene-rich copolymer and ethyl-acrylate-rich copolymer identified from Tg value . Increase in BPO concentration could increase solid content and particle size that will increase viscosity, Soil stabilization needed to achieve soil with good mechanical characteristic. Polymer suspension of poly[styrene-ko-(ethyl acrylate)] can be used as soil stabilizer. In this study, effect of poly(vinyl alcohol) (PVA), styrene, ethyl acrylate, and benzoyl peroxide (BPO) to the characteristic of polymer suspension poly[styrene-ko-(ethyl acrylate)] observed by varying their concentration. All reactions done under Batch Technique. Optimum concentration of PVA is 10% weight of total monomer weigth. There are two kinds of copolymer synthesized: styrene-rich copolymer and ethyl-acrylate-rich copolymer identified from Tg value . Increase in BPO concentration could increase solid content and particle size that will increase viscosity]