

ABSTRAK

PRARANCANGAN PABRIK POLIVINIL ALKOHOL DARI POLIVINIL ASETAT DAN METANOL KAPASITAS 30.000 TON/TAHUN

(Perancangan *Rotary Dryer* (RD-301))

Oleh

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Polivinil Alkohol merupakan bahan kimia dengan fungsi yang beragam dan kebutuhan terus meningkat. Proses yang digunakan dalam pembuatan Polivinil Alkohol menggunakan proses reaksi transesterifikasi dengan menggunakan katalis basa. Pabrik Polivinil Alkohol ini didirikan dengan tujuan untuk memenuhi kebutuhan pasar yang terus meningkat.

Pabrik Polivinil Alkohol ini direncanakan didirikan di Subang, Jawa Barat. Kapasitas produk Polivinil Alkohol adalah 30.000 ton/tahun. Pabrik beroperasi selama 24 jam/hari, 330 hari/tahun. Kebutuhan utilitas diantaranya adalah penyediaan air, penyediaan listrik dan *steam*, penyediaan bahan bakar, dan penyediaan udara tekan.

Bentuk perusahaan adalah Perseroan Terbatas, berstruktur organisasi line and staff dengan kebutuhan karyawan 145 orang. Analisis ekonomi Pabrik Polivinil Alkohol di peroleh:

<i>Fixed Capital Investment</i>	(FCI) = Rp. 631.284.005.687
<i>Working Capital Investment</i>	(WCI) = Rp. 111.403.059.827
<i>Total Capital Investment</i>	(TCI) = Rp. 742.687.065.514
<i>Break Even Point</i>	(BEP) = 41,42 %
<i>Shut Down Point</i>	(SDP) = 21,68 %
<i>Pay Out Time after taxes</i>	(POT) _a = 2,5189 tahun
<i>Return on Investment after taxes</i>	(ROI) _a = 25,245 %

Discounted Cash Flow

(DCF) = 25,75 %

Mempertimbangkan rangkuman diatas Pabrik Polivinil Alkohol dengan kapasitas 30.000 ton/tahun layak untuk dikaji lebih lanjut, karena merupakan pabrik yang menguntungkan dan mempunyai prospek yang baik.

Kata Kunci : Polivinil Alkohol, Transesterifikasi, Katalis Basa

ABSTRACT

MANUFACTURING OF POLYVINYL ALCOHOL FROM POLYVINYL ACETATE AND METHANOL CAPACITY 30.000 TONS/YEAR (Design of Rotary Dryer (RD-301))

By

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Polyvinyl Alcohol is a chemical with a variety of function and the need for it is increasing. The process used in the manufacture of Polyvinyl Alcohol using a transesterification reaction process using a base catalyst. This Polyvinyl Alcohol factory was established with the aim of meeting the growing market needs.

The Polyvinyl Alcohol factory is planned in Subang, West Java. The product capacity of Polyvinyl Alcohol is 30.000 tons/year. The factory operates 24 hours/day, 330 days/year. Utility needs include water supply, electricity and steam supply, fuel supply, and compressed air supply.

The form of the company is a limited liability company, with a line and staff organizational structure with the needs of 145 employees. The economic analysis of Polyvinyl Alcohol Plant obtained:

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Taking into consideration the above summary, it is proper establishment of Factories Polyvinyl Alcohol is studied further, because it is a plant that profitable and have good prospects.

Keyword : Polyvinyl Alcohol, Transesterification, Base Catalyst