

## ABSTRAK

### PRARANCANGAN PABRIK ALKYD RESIN DARI MINYAK KELAPA SAWIT DAN GLISEROL KAPASITAS 30.000 TON/TAHUN (Perancangan Reaktor 202 (RE-202))

Oleh

ARJUN FATAHILLAH

Pabrik Alkyd Resin berbahan baku Minyak Kelapa Sawit dan Gliserol, akan didirikan di Kawasan Industri Cilegon, Banten. Pabrik ini berdiri dengan mempertimbangkan ketersediaan bahan baku, sarana transportasi yang memadai, tenaga kerja yang mudah didapatkan dan kondisi lingkungan.

Pabrik direncanakan memproduksi Alkyd Resin sebanyak 30.000 ton/tahun, dengan waktu operasi 24 jam/hari, 330 hari/tahun. Bahan baku yang digunakan adalah Minyak Kelapa Sawit sebanyak 2.601,285 kg/jam dan Gliserol sebanyak 610,955 kg/jam.

Jumlah karyawan sebanyak 163 orang dengan bentuk perusahaan adalah Perseroan Terbatas (PT) menggunakan struktur organisasi *line* dan *staff*. Dari analisis ekonomi diperoleh:

<i>Fixed Capital Investment</i> (FCI)	= Rp. 154.519.835.780,-
<i>Working Capital Investment</i> (WCI)	= Rp. 17.168.870.642,-
<i>Total Capital Investment</i> (TCI)	= Rp. 171.688.706.423,-
<i>Break Even Point</i> (BEP)	= 34,96 %
<i>Shut Down Point</i> (SDP)	= 26,11 %
<i>Pay Out Time after Taxes</i> (POT) <sub>a</sub>	= 2,98 tahun
<i>Return on Investment after Taxes</i> (ROI) <sub>a</sub>	= 33,19 %
<i>Internal Rate Return</i> (IRR)	= 37,85 %
<i>Annual Net Profit</i> (Pa)	= Rp. 56.999.063.763,-/tahun

Mempertimbangkan paparan di atas, sudah selayaknya pendirian pabrik Alkyd Resin ini dikaji lebih lanjut, karena merupakan pabrik yang menguntungkan dan mempunyai masa depan yang baik.

## ABSTRACT

### PRADESIGN OF ALKYD RESIN PLANT FROM CRUDE PALM OIL ANG GLYSEROL 30.000 TONS/YEAR (Design of Reactor 202 (RE-202))

By

ARJUN FATAHILLAH

A plant to produce Alkyd Resin from Crude Palm Oil (CPO) is planned to be located at Cilegon Industrial Area, Banten.. The plant is established by considering availability of raw materials, transportation facilities, readily available labor and environmental conditions.

Capacity of the plant is 30.000 tons/year operating 24 hour/day and 330 working days/ year. The plant required 2.601,285 kg/hr CPO and 610,955 kg/hr Glyserol.

Quantity of labor is around 163 people. The plant is managed as a Limited Liability Company (PT), which is headed by a Director who is assisted by a Director of Production and Director of Finance. The company is organized in the form of line and staff structure. From analysis of the plant economy is obtained:

<i>Fixed Capital Investment (FCI)</i>	= Rp. 154.519.835.780,-
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<i>Annual Net Profit (Pa)</i>	= Rp. 56.999.063.763,-/year

By considering above the summary, it is suitable study further the Alkyd Resin plant since plant is profitable and has good prospects.