

ABSTRACT

GLUCOSE FACTORY DESIGN OF CORN STARCH WITH ACID

HYDROLYSIS PROCESS CAPACITY 100,000 TONS / YEAR

By

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Factory glucose made from starch and water, will be established in the Tarahan, South Lampung. The factory is established by considering the availability of raw materials, adequate transportation facilities, readily available labor and environmental conditions.

The factory is planned to produce glucose as much as 100,000 tons / year, with operating time of 24 hours / day, 330 days / year. The raw materials used are as much starch 14 841 kg / h and water as much as 21769.62 kg / h.

The shape of the company is a Limited Liability Company (PT) using line and staff organization structure with the number of employees as much as 188 people.

Of economic analysis is obtained:

Fixed Capital Investment (FCI)	= Rp 144.798.150.200,-
Working Capital Investment (WCI)	= Rp 12.755.350.020,-
Total Capital Investment (TCI)	= Rp 160.886.833.555,556-
Break Even Point (BEP)	= 47.68%
Before Taxes Pay Out Time (POT) b	= 3.3 years
Pay Out Time after Taxes (POT) a	= 3.8 years
Before Taxes Return on Investment (ROI) b	= 31.93%
After Taxes Return on Investment (ROI) a	= 25.55%
Discounted Cash Flow (DCF)	= 58%
Shut Down Point (SDP)	= 24.26%

Taking into consideration the above explanation, it is proper establishment glucose factory is studied further, because it is a plant that is profitable and have a good future.