ABSTRACT

Pre-design of textile factory by feasibility study of nonwoven geotextile factory with needle punch system and production capacity of 12.000.000 meters/annum is based on the need to fulfill of geotextiles product to strengthen the soil structure. About 27 million hectare or 10 percent landscape in Indonesia consist of swamp land, peat moss or turf land which will do to develop, can be supposed that the project need some material like geotextiles fabric. The functions of geotextiles are for separation, reinforcement, filtration, and drainage.

This factory will be established in Pasuruan Industrial Estate Rembang (PIER) industrial teritory, Pasuruan regency, East Java. The raw material used is polyester fibers. The manufacturing nonwoven process using needle punch system, in the needle punched process; a fibrous web is introduced into machine equipped with groups of specially designed needles.

The factory will be covered by capital investment in amount Rp 52.106.235.000 while working capital Rp 65.811.288.882. Based on the economic analysis indicated that the value of Break Even Point (BEP) Rp 43.133.586.243 or 40,20% and Shut Down Point (SDP) 11 %. The percentage of Return of investment (ROI) before tax is 47% and ROI after tax is 45% The capital investment will return in 2 years.

Based on the result and facts, it can be concluded that the pre-design of nonwoven geotextile factory is visible to be build.