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# Engineering application of MBR in treating the fiberglass wastewater

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**ABSTRACT**

A 100-L pilot Membrane Bioreactor (MBR) in situ experimental facility was used to study the treating ability of fiberglass plant wastewater. Fiberglass wastewater has the characteristic of high Chemical oxygen demand (COD) concentration after the processes of mixing, desizing, dyeing and snag under high-temperature condition. The object of the study was to improve the existing wastewater treatment process by applying the MBR system. The study was conducted in a six months period and an engineering scale up MBR system with 800 CMD of treating capacity was built into the wastewater treatment plant and had improve the quality of discharged wastewater and achieved the purpose of wastewater reclamation. The results showed that at 12 h of HRT (Hydraulic Retention Time) for the MBR system, the COD concentration was reduced from original 900 to 1300 mg/L to under 50 mg/L with the COD removal efficiency at 94 to 96%.

*Keywords:* MBR (Membrane bioreactor); Fiberglass wastewater; Engineering application

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