

**A REVIEW ON THE PREPARATION OF
SUPERHYDROPHOBIC POLYETHYLENE AND THEIR
APPLICATIONS**

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AUGUST 2022

**A REVIEW ON THE PREPARATION OF SUPERHYDROPHOBIC
POLYETHYLENE AND THEIR APPLICATIONS**

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**Final Year Project Report Submitted in
Partial Fulfilment of the Requirement for the
Degree of Bachelor of Science (Hons.) Polymer Technology
in the Faculty of Applied Sciences
Universiti Teknologi MARA**

AUGUST 2022

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Date: 17 August 2022

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ABSTRACT

A REVIEW ON THE PREPARATION OF SUPERHYDROPHOBIC POLYETHYLENE AND THEIR APPLICATIONS

Scientists have recently shown an interest in artificially mimicking naturally occurring superhydrophobic surfaces. There were several methods for creating the superhydrophobic surfaces, either through chemical, or physical approach. In this review, a few fabrication techniques of superhydrophobic polyethylene (PE) have been discussed such as phase separation, template, electrospinning, dip coating method, chemical etching and hot embossing. Some of the presented methods were found to be advantageous to the industry, while other methods were quite expensive. Apart from that, the applications of superhydrophobic PE were also mentioned in this thesis. Superhydrophobic materials were found to be useful for various applications due to their excellent anti-icing, anti-bacterial, self-cleaning and oil water separation.