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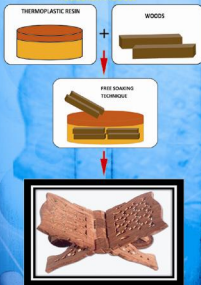
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Production Process



Results & Conclusion

- The flexural strength and modulus properties of modified wood has been improved.
- SEM micrograph showed that the wood contained with polymer and having interaction of the polymer with the wood.
- Modified wood showed least water absorption compared to untreated wood.

PLASTIC IMPREGNATED LIGNOCELLULOSIC COMPOSITES

Introduction:

Lignocellulosic polymer composites are supported new generation reinforcing materials. Hence, lignocelluloses make composite become more environmentally friendly. This work is focused on the fabrication and analysis of the lignocellulosic reinforced thermoplastic materials. The aim of the research project is to develop eco-composite based polymer and improve ineffective lignocelluloses to an incredibly valuable products. Fabrication of lignocellulosic polymer composite was carried out by impregnating the polymer substrate with a lignocelluloses fibre and undergoes normal as well as vacuum pressure to produce the samples. Furthermore, due to the strong lignocelluloses structure, these fibres possess good strength properties compared to other reinforcing materials. These lignocelluloses materials offered low cost raw materials, easy availability, non-toxicity and required simple production equipments.

Problem Statement:

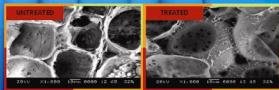
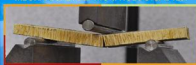
Lignocellulosic materials have some limitations, such as dimensional instability, ultraviolet and biological degradation, and thermal instability. However, with a better understanding the relationship between chemistry, properties, and performance of lignocellulosics, we can produce a new generation of value added composites that will be performance driven rather than cost driven.



Advantages:

- Light weight
- Low production cost
- Ease of processing
- Low raw material cost
- Low density
- High strength product

MECHANICAL AND MORPHOLOGICAL TEST



Novelty:

- Environmental friendly based product
- Economically saved
- Value added process incorporation of polymer matrix into lignocelluloses into high strength product.