

Technology Summary: Environmentally Friendly Laundry Color Absorber Material

Opportunity Statement

The global laundry detergent market was valued at 150 billion USD in 2021 and is expected to grow at a CAGR of 6%. One of the emerging segments in this fast-growing market is color absorber, a material that can absorb dyes from coloured clothes and prevent colour runs. Use of color absorbers can potentially reduce a significant amount of water consumed in the laundry process by allowing the mixing of clothes of different colors for washing.

Due to increasing awareness of sustainability issues, there is an increasing trend to adopt environmentally friendly and safe laundry detergent products. As a result, many detergent manufacturers have initiated plans to replace aggressive chemical ingredients with natural and safe alternatives and create a new line of green laundry products.

Therefore, there is an opportunity for a technology to provide a highly effective laundry color absorber based on environmentally sustainable materials.

Techbridge Partner's Solution

Techbridge's Partner has developed a proprietary laundry color absorber based on a hydrogel material derived from Chitosan. This biodegradable material can be extracted from the shells of crustaceans and is widely available on the market.

The key advantages associated with this technology are as follows:

- Fast action: Average dye removal time of 20 minutes compared to 40 minutes of competing products
- Multifunctional: Various laundry additives, including fabric softener, antimicrobial agent and water softener, can be added.
- Sustainable: The main material ingredient is Chitosan, a biodegradable material with minimal impact on the environment.
- Reusable: Laundry Color Absorber can be used up to three times.
- Reliable: Works in a wide range of temperatures.

Patents

The Partner has filed patent applications on this technology in US, China, Europe, and Canada.

Current Status

The Partner has developed a color absorber dispenser package for the Product that can be used directly in the washing machine. (see Figure 1) The dispenser has been designed to provide optimal water flow during use to enable the hydrogel material to achieve optimal dye absorption. The technology has been validated in operation and can be scaled up with further process optimisation.

Collaboration Model

The Partner is seeking collaborations in the following area:

- Joint Development
- Joint Venture
- Licensing
- Investment

For additional information, please contact:

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Figure 1 Color Absorber Dispenser Package