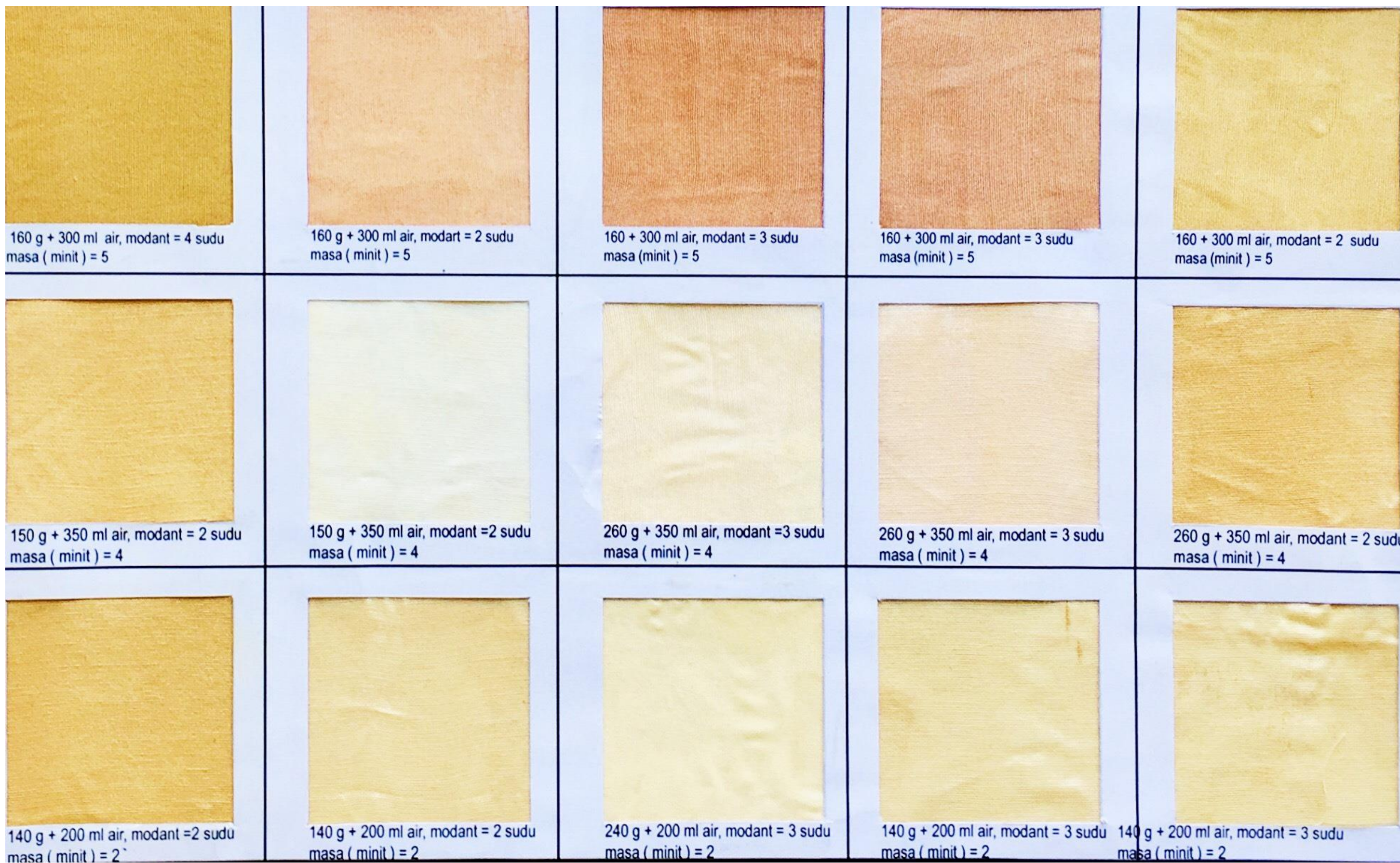


ALGATex: NATURAL ALGAE FOR TEXTILE PRODUCT

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Due to the environmental concern, the demand on natural sources became crucial in textile processing. The research explores instances where organic material from algae can expand the used of natural colorant in the textile dyeing process. This research obtains natural dyes, pigments from a sustainable and renewable source of micro and macro algae-based dye combine.

The colour enhancer from heterogenous catalyst and sea water used in the dyeing process found to be more environmentally friendly in textile industry to replace the synthetic dyes currently employed. This makes a great potential to upgrade algae value, and apply it in the textile industry, which is much more environmentally friendly.

INVENTION

ALGATex is a natural bio-colorant from algae. The process started by harvesting the micro and macro algae species. It involves the drying, grinding and heat to make homogenous mixture and to enhance surface area for maximum contact with the solvent used.

The pre-mordanting process of dyeing mainly based on the natural source of minerals (alkali or acid) solvent in order to get the highest substantively of natural colorants. All algae has their own specific colour, so by trying the different species, various colour palettes from the range of blue-green, green, red and yellow brown found as an alternative renewable source in textile dyeing.

SOCIAL BENEFIT

- Environmentally concern
- Innovative idea for social entrepreneurs
- Community involvement in creating local colours for textile products
- Utilization of local resources



ADVANTAGES

- Uses 100% bio- colorant dye from natural algae.
- It is an environmental friendly dye and a sustainable alternative to the synthetic dyes.
- A cost effective process since it is from the abundant algae from the sea or lake
- Only organic mineral such as sea water and heterogenous catalyst used in the process

MARKET POTENTIAL

- It is a low technology process
- 50% lower for commercialization production compared to commercial production.
- Potential as a colour pigment for dye bath process and silk screen printing process.
- Targeted at local and international SME textile dyeing industries, art materials supplier and designers



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