Citation: Shaimaa kamel (2023), Smart clothes using hydrochromic printing pastes with the interactive ability for swimming clothes, International Design Journal, Vol. 13 No. 5, (September 2023) pp 251-254

Smart clothes using hydrochromic printing pastes with the interactive ability for swimming clothes

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Abstract:

Changing in colour of the fabric is a new kind of smart textiles that current distinctive properties relative to pigment paste. When the printed material subjected to a specific stimulus, these materials display reversible colour changes, giving these materials dynamic and interactive properties. Recently, different of chromic materials presents in textiles filed. The objective of this work is to study smart clothes using one of the interactive printing pastes that can be applied in printing on swimming wear to add a esthetic and functional form, namely hydrochromic printing paste, it is characterized by changing its color when exposed to water or moisture. These pastes were applied to polyester material, and it was chosen because of its widely used in swimwear fabrics. The experimental work conducted demonstrates the effect of fastness properties such as washing and friction, and a comparison was made between hydrochromic paste and pigment paste, and the hydrochromic paste gave good results.

Keywords:

Smart textiles, hydrochromic pastes, pigment pastes, swimming wear

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Paper History:

Paper received June 15, 2023, Accepted August 11, 2023, Published on line September 1, 2023

