

## Coloration approaches on sheath/core type nylon fibers having PCM particles

김형주, 박준민, 이아름, 임상현<sup>1</sup>, 임정남<sup>2</sup>, 손영아<sup>†</sup>

충남대학교 유기소재·섬유시스템공학과

<sup>1</sup>T&L Co., Ltd.

<sup>2</sup>한국생산기술연구원, 융합섬유기술그룹

## Coloration approaches on sheath/core type nylon fibers having PCM particles

Hyungjoo Kim, Junemin Park, Areum Lee, Sanghyun Yim<sup>1</sup>, Jungnam Im<sup>2</sup>, Young-A Son<sup>†</sup>

Department of Advanced Organic Materials and Textile System Engineering, Chungnam National University, Korea

<sup>1</sup>T&L Co., Ltd., Korea

<sup>2</sup>Convergent Textile Technology Group, Korea Institute of Industrial Technology, Korea

yason@cnu.ac.kr, 042-821-6620

### Abstract

Thermo-regulated textiles have been attracted more attention in medical textile application areas. Phase change materials, namely PCM, are substance with a high heat of fusion and can absorb a lot of energy before melting, which make the temperature remain constant during the phase changes. Herein, using nylon fibers having different PCM content were dyed and characterized to determine the coloration properties with PCM content ratio. The corresponding findings were discussed.

### Acknowledgement

This research was supported by a grant from the Fundamental R&D Program for Core Technology funded by the Ministry of Knowledge Economy, Republic of Korea.

### 참고문헌

1. R. Simone and W. Matthias, "Phase Change Materials", Springer, 2009.
2. S. Burkinshaw, "Chemical Principles of Synthetic Fibre Dyeing", 1995.