

Author's Accepted Manuscript

Expansion of Effective Wet Bulb Globe Temperature for Vapor Impermeable Protective Clothing

Tomonori Sakoi, Tohru Mochida, Yoshihito Kurazumi, Shin-ichi Sawada, Yohsuke Horiba, Kohei Kuwabara



PII: S0306-4565(17)30253-X
DOI: <https://doi.org/10.1016/j.jtherbio.2017.10.016>
Reference: TB2006

To appear in: *Journal of Thermal Biology*

Received date: 30 June 2017
Revised date: 25 October 2017
Accepted date: 25 October 2017

Cite this article as: Tomonori Sakoi, Tohru Mochida, Yoshihito Kurazumi, Shin-ichi Sawada, Yohsuke Horiba and Kohei Kuwabara, Expansion of Effective Wet Bulb Globe Temperature for Vapor Impermeable Protective Clothing, *Journal of Thermal Biology*, <https://doi.org/10.1016/j.jtherbio.2017.10.016>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Expansion of Effective Wet Bulb Globe Temperature for Vapor Impermeable Protective Clothing

Tomonori SAKOI^{a*}, Tohru MOCHIDA^b, Yoshihito KURAZUMI^c, Shin-ichi SAWADA^d,
Yohsuke HORIBA^a, and Kohei KUWABARA^e

^aInstitute of Textile Science and Technology, Academic Assembly, Shinshu University, Ueda
386-8567, Japan

^bHokkaido University, Sapporo 060-0808, Japan

^cSchool of Life Studies, Sugiyama Jogakuen University, Nagoya 464-8662, Japan

^dHazard Evaluation and Epidemiology Research Group, National Institute of Occupational Safety
and Health, Kiyose 204-0024, Japan

^eNational Institute of Technology, Kushiro College, Kushiro 084-0916, Japan

*Corresponding author. t-sakoi@shinshu-u.ac.jp

Abstract

The wet bulb globe temperature (WBGT) is an effective measure for risk screening to prevent heat disorders. However, a heat risk evaluation by WBGT requires adjustments depending on the clothing. In this study, we proposed a new effective WBGT (WBGT_{eff}^{*}) for general vapor permeable clothing ensembles and vapor impermeable protective clothing that

Download English Version:

<https://daneshyari.com/en/article/8650120>

Download Persian Version:

<https://daneshyari.com/article/8650120>

[Daneshyari.com](https://daneshyari.com)