PROTECTIVE CLOTHING IN THE SUN

R Tamás
National Defence University, St. John's Hospital, Budapest

ABSTRACT
Sun protective clothing is clothing designed for sun protection and is produced from the fabric rated for its level ultraviolet (UV) protection. Some textiles and fabrics employed in the use of sun protective clothing may be pre-treated with UV inhibiting ingredients during manufacture to enhance their UV blocking capacity.

Key Words: protective clothing, sun, UV protection

INTRODUCTION
Sun protective clothing (SPC) may also adhere to specific design parameters- including styling appropriate to full coverage of the skin most susceptible to UV damage. A number of fabrics and textiles in common use today need no further UV blocking enhancement based on their inherent fiber structure, dye components and density of weave-especially darkers colour. Good examples of these fabrics contain full percentages and/or blends of heavy weight natural fibers like cotton, linen and hemp or light-weight synthetics such as polyester, nylon, polypropylene and lycra. A significant disadvantage is the heat retention caused by heavier and darker coloured fabrics. SPC is usually meant to be worn during warm and humid temperatures, some UV-blocking clothing may be designed with ventilating weaves, moisture wicking and antibacterial properties to assist in cooling. SPC was originally popularized in Australia as an option to sunscreen lotions. UV protective fabrics (UPF) rating system may eventually be adopted by interested apparel and domestic fabric/textile manufacturers in the industry at large program strategic to complement consumer safety. Thermal insulation and moisture vapor resistance of clothing are two important clothing properties with respect to thermal comfort. The accurate determination of these two clothing properties is crucial to the selection of suitable clothing for different uses, functional clothing design and thermal environmental engineering. Although these two properties can be measured by tests on human subjects or using sweating manikins.

CONCLUSION
Factors that affect the level of sun protection provided by a fabric, in approximate order of importance, include color, weave, stretch, and wetness. In addition, UV absorbers may be added at various points in the manufacturing process to enhance UV protection levels. In this field further studies are needed in the future.

REFERENCES