



Student Research Support Grant Program

The Foundation has established a grant program to assist undergraduate and graduate students with research in textile chemistry and other textile-related projects. The purpose of the program is to encourage original research in textile design, materials, processing, and testing. Funding priority will be given to projects that involve laboratory and end-use correlation studies, wet processing research, and other current topics that have been identified by AATCC Foundation.

Grants will be awarded to meritorious proposals selected by the AATCC Foundation Student Research Review Board and approved for funding by AATCC Foundation Committee on Research.



Four grants were awarded in 2007. Here, in the first of a two-part series, we feature the abstract from one of the participating students.

Research findings will be made available to the public and will be used in the education of college and university students, including an expanded program of university level, textile research of general interest to the consuming public (the program, for undergraduates and graduates, makes a higher level of financial assistance available); and sponsorship of research projects through universities or other textile-related organizations, to promote better understanding of textile science. For further information, contact Yiqi Yang, chair, AATCC Foundation Student Research Support Program, University of Nebraska-Lincoln; telephone 402-472-5197, e-mail yyang2@unl.edu.

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Effect of Silicone Finishes on the Burning Behavior of PET

Polyester is, in manufacturing terms, the most successful synthetic fiber in the world. However, in order for it to achieve the final desired fiber/fabric properties (required for many textile applications) silicone additives are required in the form of softeners, lubricants and water treatment antifoams. However, it is widely recognized in the textile industry that silicones have a deleterious effect on the burning properties of polyester materials. There are few publications elucidating the antagonistic defeat of the FR process for polyester observed with commercial finishes. The lack, and in some cases contradictory, information regarding these antagonistic effects is remarkable considering the role of silicone finishing in the performance of the material. The need to fully define this role has been clearly identified and the mechanisms of this behavior require definition via analytical techniques and experimental verification. In addition, the utilization of new techniques and development of approaches to elaborate and prove or disprove established mechanisms will be investigated. It should be noted that the current mechanisms are postulated based on visual observations and limited experimental data.