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Development of a **Textile** with **Silica** coating for environmental friendly control of insects in **Agricultural** production

Deliverable [12]: *[Data's of coated fabrics characterization and comparison with alternative coated fabric surfaces]*

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Project Details:

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Project Title: Development of a textile with Silica coating for environmental friendly control of insects in agricultural production

Project Acronym: AgriTexSil

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Deliverable Details

WP: [4] [Textile prototyping]

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Deliverable Title: [Data's of coated fabrics characterization and comparison with alternative coated fabric surfaces]

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Lead beneficiary: [Thrace NG]

Involved Partners: [UTH]

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Abbreviations:

ITA: Institut für Textiltechnik, Germany

UTH: University of Thessaly, Greece

ThraceNG: Thrace Nonwovens & Geosynthetics S.A.

P&S: Powder and Surface GmbH

D [12]: [Data of coated fabrics]



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D [12]: [Data of coated fabrics]



1. Summary

It is worth noting that coating of fibers was not done because of the abrasion generated during the weaving process on looms. Abrasion was so extended that was removing significant amount of silica particles from yarns' surfaces and spreading them into the air like dust (aerosol) creating a dangerous and unhealthy environment for both the working personnel as well as the production machinery. Therefore, coating performed only on already weaved nets – fabrics.

The coated fabrics characterization involved optical microscopy and silica particle uptake. The comparison with alternative coated fabric surfaces, with dissimilar structure and diverse applications like those in Table 1 below, involved the comparison of these properties.

D [12]: [Data of coated fabrics]



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The deliverable is available upon request

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D [12]: [Data of coated fabrics]

