

# Prosys-laser™: testing rig for characterization of laser beam protective textile



The laser beam protective textile has to be tested for level of heat transmitted through and for Reflectivity including specularly, Transmissivity and Absorbance. Prosys-laser™ testing rig is the novel heat resistant textiles testing framework, where Stoll-Chianta criterion is extended with specularly and R T A characterization.



## Testing rig features

- Calorimeter based evaluation of Stoll-Chianta criterion
- BRDF used for specularly, reflectivity, transmissivity and absorbance estimation
- Fully automatic testing procedure based on the preprogrammed goniometer cycle of photonic data gathering
- Fully automatic "Time to burn" estimation
- Supported test report generation
- User safe measurements area



## Application

### Primary:

Research on textile architecture design and certification procedure for PPE being able to protect the operator of Hand Laser Device against casual harm from high density energy of laser beam impact.

Research on textile architecture design and certification procedure for laser beam protective curtains on the laser operation workshop.

### Secondary:

Research, design and quality control of material surface being under visual and close to visual range of radiation.

## Constrains

Laser energy density below 8kW/cm<sup>2</sup>  
Operation area equipped fire/smoke protection devices

## Delivery and related services

On demand according to requested configuration

## Acknowledges

Development co-founded by European Commission, project FP7 NMP2-5E-2009-229165

## NOTES

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