



ISTITUTO ITALIANO  
DI TECNOLOGIA

## TITLE

Multilayer woven textiles coated with silicone rubber, with micro particles as flame-retardant and/or reinforcement materials.

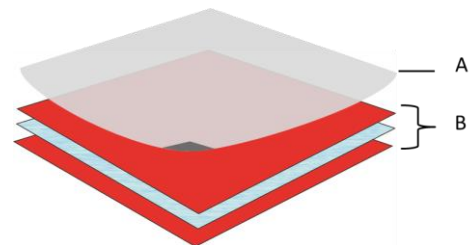
## INVENTORS

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## DESCRIPTION

The structure of the composite material of the invention is obtained via layer by layer coating process. The main layers of the composite material are: a substrate layer of para-aramid fibres (A), a textile woven retardant flames fibres layer (B) (preferably consisting of polyester flame retardant) and a silicone rubber layer. The material further comprises an intermediate silicone layer between the two fibrous textiles and comprising filler glass spheres and iron (III) oxide micropowder incorporated in the polymeric matrix made up by the silicone rubber layer.

The material shows good mechanical performances (Abrasion Cycles, Cutting Index, Tear Force (N), Puncture Force (N)), due to its "sandwich" construction and good thermal resistance (Contact heat, Convective heat, Radiant heat, Small splashes of molten metal) due to the combination of the components.



## APPLICATIONS

safety garments, surface coverage of locations of low/medium voltage instruments

## KEYWORDS

Composite layered material fabric, flame retardant material, para-aramid fibres, silicone rubber

## BIBLIOGRAPHIC DATA

Materiale multistrato di ridotto spessore per la protezione contro l'arco elettrico

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