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Composition

Fabric made of glass fibres, electro-active nanopolymers and phosphor

Properties

Light, flexible, durable, resistant to extreme conditions, perforation, abrasion, torsion and compression, flame resistant, and doesn't contain mercury or other toxic substances

Applications

Fashion industry, industrial design, military, sportswear, security/safety, architecture, etc.

Technical specifications

- Any type of textile can be used as a substrate, as well as rigid materials such as glass or metals
- Colours: white, yellow, blue, red and green
- Power requirement: 25-50 W
- Light efficiency: between 1.5 and 4 lumens/W
- Internally reflected component (IRC): between 73 and 84
- Panel weight (800 x 1000mm): 300 g
- Gelbo Flex Test (no. of cycles): passed (400 cycles)
- Flame Test, ASTM D6413-99 (Standard Test Method for Flame Resistance of Textiles - Vertical Test): passed
- EMI Interference, MIL-STD-461E (Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment): passed

ReLight

ReLight is a new-generation light, based on electroluminescence technology. First developed exclusively for the military sector by a company at the forefront of research on electro-active polymers, this material is composed of glass fibres with micro-coatings of conductive polymers. This is therefore a cold-light source which is flexible and presents no danger for a person handling it. The light emission is diffuse and uniform and opens the way to various applications where the ability to 'fold' the light, for example for transport or packaging, may be very valuable.

See notions: **Electroluminescence** p.220



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1 In the dark the seats in this sports car come alive thanks to the azure blue ReLight fabric between the carbon fibre frame and the Techno-gel cushion which gives the driver and passengers the spectacular impression of an endless space.

© Courtesy of Bertone

2 ReLight panels are pre-installed onto the US Army tent liner to enable fast deployment of the air beam tent when needed.

© Courtesy of US Army

3 A 170 cm² ReLight panel undergoing the Gelbo flexibility test. ReLight panels can withstand up to 100 twist cycles with minimal degradation.

170



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