





# **re**materialize the future! by material sense



















A CONTRACTOR OF A CONTRACTOR O	THE COMPANY OF		011500-
and the second se		and the second second second	a second
	and the second second second	and the second second	
	1 I I I I I I I I I I I I I I I I I I I		
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
and the second se	the second second second		
ALL			
		the second second	
TATES			
the second se			
STATE AND ADDRESS OF TAXABLE			
and the second se			
TRADE IN COMPANY		the second s	
and the second se	in the second second	and the second se	
	The second se	the second second	1
and the second se		111111111111111111111111111111111111111	1 1 1 1 1 1 1 1 1 1 1 1
the second s	11111	in the second	
		and the second second	
Concerns to the second second	the second se		
	and the second se		
the second s			
and the second se	******		
Charles of Contractory of			
and the second se			
the second s	1	and the second se	
and the second se	and the second sec	the second s	
	and the second se		1 1 1 1 1 1 1 1 1 1 1
trained to be a set of the			1 1 1 1 D 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
(a) a ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	ALL STREET	The second s	
			1000 - 30
TRAFFIC STREET	and the second se	and the second se	
and the second se	The second s		and the second second
a second s	and the second se		
the second se			
the second s	the second se		
THE PLANNER ST			
in the same	1111111		
in the second	12.00		
1.0	11.003	12.00	
			11.1

## www.materialsense.com

## rematerialize the future!

Tickle your senses at Rematerialize the Future! Explore the wonderful, weird, and innovative materials of the future, brought to you by Material Sense. Marvel at Material Sense's ongoing search for aesthetic sustainability: from the revaluation of the traditional, to a scientific approach of nature's gifts. This year's focus is on the interior and clothing branches.

A few examples: a car door reinforced by the traditional material of hemp. Golden oldie flax, used to produce stylish rope lamps. Gorgeous textile made of horsehair and felt, screaming to be touched, with surprisingly soundproofing qualities. Wearable plastic: high quality, comfortable sportswear like fleece, made out of recyclable PET. Tantalizing wallpaper in fabulous designs, produced in a fully sustainable manner. Nature and science meet to create bioluminescence: living organisms lighting your life and home.

#### Revalue, Recover, Remind, Refine

Material Sense clearly distincts four categories for its materials. And although this classification by no means offers a complete index of sustainability, it may help to put things in perspective. **Revalue** is about the reuse of ingredients, and also revalues the use of old and sometimes forgotten production techniques and local materials. Self-healing materials can be found under the heading of **Recover. Remind** shows alternative design solutions, inspired by nature, while **Refine** consists of lighter, but stronger, materials, where less is needed for a better result.

#### **Material Sense**

Material Sense aims to connect industrial designers, researchers and cutting edge companies by offering expert advice and insight in the development and application of sustainable materials, making use of a solid network. Since its foundation in 2002, Material Sense has pioneered the use of materials that not only offer sustainable solutions, but most of all stand out because of their aesthetic qualities and their tickling of the senses. Responsibility and vision in a perfect marriage: the future is a wonderful place!



### **Composite door panel**





Hemp fibres are used as a substitute for synthetically fibres like glass fibres in composite materials. The fibres of HempFlax are used as a car door panel reinforcement for the car industry.

The hemp fibres and a little percentage of flax fibres are combined with a synthetic resin in this composite material.

Materials and Sustainability: the renewable hemp fibres are extracted mechanically with hammer mills and separators. After separation the fibres are mechanically cleaned and refined to a high quality fibre. In the production process of the reinforcement material no chemicals are used.

nr. 246 revalue

#### manufacturer

HempFlax

designer

HempFlax www.hempflax.com

#### by material sense



### Purple Textile MK Deep bleached closed blocks MK Grey semi closed blocks







John Boyd Textiles is one of the last companies in the world still weaving hair cloth. Horsehair fabrics are woven with the finest and best quality tail hair from live horses. Horsehair fabric ideally suits most forms of upholstered furniture, antique, classical and contemporary. To this day, the fabrics are widely recognized for their unequalled lustre, durability, care properties and value. Horsehair fabrics have been used in many prestigious projects throughout the world. New designs and colours have been added to the collection in recent years. John Boyd Textiles works together with designer Marianne Kemp.

Materials and Sustainability: Mongolian horsehair from tails and cotton. Horsehair is a strong, resilient material with ventilating properties by nature. Coloured weaving is made from blond horsehair coloured with synthetic colouring same as for wool and silk.

nr. 100 revalue

#### manufacturer

John Boyd Textiles

designer

Marianne Kemp www.horsehairweaving.com

#### by material sense



## Bioluminescent Field The design of living light





Bioluminescent Field investigates the question of the possibility to design biological light. The ability to stimulate and influence the light emitted from certain microorganisms has been intensely researched and transferred into a visionary concept. The walk-in installation understands the organisms as self-sufficient biological movement sensors that emit light signals when stimulated by visitors entering the field. Working with living organisms requires a highly sensitive design approach, bearing in mind that the organisms are dependent on circumstances, vital for their survival. Within these boundaries, design can unfold.

Materials and Sustainability: 100 % biologic light by micro-organisms (dinoflagellates) that live in the ocean, through photosynthesis energy is generated during the day and at night light is produced. Bioluminescence is a very efficient form of light emission. Nearly all required energy is given off as cold light.

nr. 243 remind

researcher

Department of Cell-Biology, Philipps-Universität Marburg, Germany Ms H. Thierfelder & Dr. S. Zauner

designer

Nicola Burggraf www.nicolaburggraf.com

#### by material sense