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Textiles: Back to the Future

What about Eucalyptus yarn / fabrics? Like Bamboo, doesn't this have inherent antibacterial properties?

Bamboo and Eucalyptus have some antibacterial properties when made into fabric using the lyocell process (Tencel). Their antibacterial is slightly more than when using cotton or wood sources.

Are the luxury brands interested in sustainable textile too? Or are they the clients / potential clients for sustainable textile?

Yes, they are at the forefront of sustainable fabric innovation. They look for natural f bers that are durable and well produced. This typically means a more considered and sustainable approach to growing and harvesting. Quality typically means a better production process.

Turmeric is used for natural dying the fabric. Does it help in antibacterial use too? And if it does, are there ways to prevent turmeric from coloring the textile?

Yes, it has antibacterial properties. I am unsure of ways to ensure that Tumeric does not color the fabric. Do you think one day the recycled fibres demand (such as polyester and nylon) will overcome the offer? What is the solution to that?

Yes, if using <u>mechanical recycling</u>. No if we use <u>chemical recycling</u>.

I discuss this in another session, but chemical allows for the creation of new, virgin plastics from recycled materials. It is currently more complex and thus more expensive, but has the potential for allowing for 100% recycled content products that are equivalent in performance to those made from virgin plastic.

Once we have all chemical recycling we can avoid using any virgin. We need to make up the shortfall for greater production with renewable f bers.

What about UV light to disinfect surfaces and textiles?

It certainly does work. It cannot safely be done while humans are present (not large scale and intense anyway). It is also line of sight, so it would need to be manipulated to ensure all surfaces were treated.

Can you give name of waterless dying companies?

<u>e.dye®</u> <u>dyecoo</u>®

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Textiles: Back to the Future

Can you talk a little bit about durability in coatings? Does it need to be reapplied to stay effective?

Ideally it should not have to be replied; people would not want to send their garments back to be retreated.

Most will wear of due to washing and abrasion. The best are those that are forced into the fabric rather than just as a surface application.

The fully durable coatings used in workwear and outdoor gear tend to make the fabric stif and less drapable.

Are sustainable initiatives from brands, who also have full standard lines, just marketing hype?

Yes and no. sustainable initiatives for smaller collections are ways to test the process and material before bringing it to the mainstream. The hope or intention is that eventually all of the brand's products will then adopt the innovation.

Could you provide names of the 3D knitting manufacturers you're talking about?

Wovenit Studio Eva X Carola Fabdesigns, Inc. KNITit kobleder®

Are brands listening to consumers about the need for greater sustainability in apparel or is it all guided by the companies themselves?

Both. Sustainable messaging resonates with many consumers. However many consumers do not know what type of sustainability they want, thus the brands need to determine the best course of action that includes demonstrable gains with maintained value and performance.

What about the duration of the anti-bac chemicals? what are the most durable during the time?

Anything with a metal that maintains that metal surface over time will be effective. This can be done by encapsulating the metal ions in zeolite 'cages' that are resistant to removal, or to provide sufficient actual metal on the surface to keep the kill rate up. Metals do not get saturated or reduce efficacy over time.

What are some alternatives for antiviral and antibacterial coatings other than the metals? What are some of the names of the plant based water resist treatments? Also, are the Plasma treatments able to resist oils?

Plasma treatments do not resist oils well, but do improve somewhat. Plant based antibacterials include Life Material Technologies Ltd., and Wasaouro[™]