



**EARTHCOLORS<sup>®</sup>** / How can you harness the power  
of nature?



How do **we**  
harness the  
power of nature  
**together?**



## THE ARCHROMA WAY TO A SUSTAINABLE WORLD

As a global leader in color and specialty chemicals, we touch and color people's lives every day, everywhere. That is why, at Archroma, we continuously challenge the status quo in the deep belief that we can make our industry sustainable.

We are committed to develop innovative systems and services to provide you with custom solutions that are:

**SAFE** – It's our nature to protect.  
Safe to use, safe to release and safe to wear.

**EFFICIENT** – It's our nature to rethink sustainable manufacturing.  
Innovating application processes that minimize resources and maximize productivity.

**ENHANCED** – It's our nature to add another level of value.  
Effects, functionality and aesthetics to give additional value, for a life enhanced.

We call it "The Archroma way to a sustainable world". Because **it's our nature!**

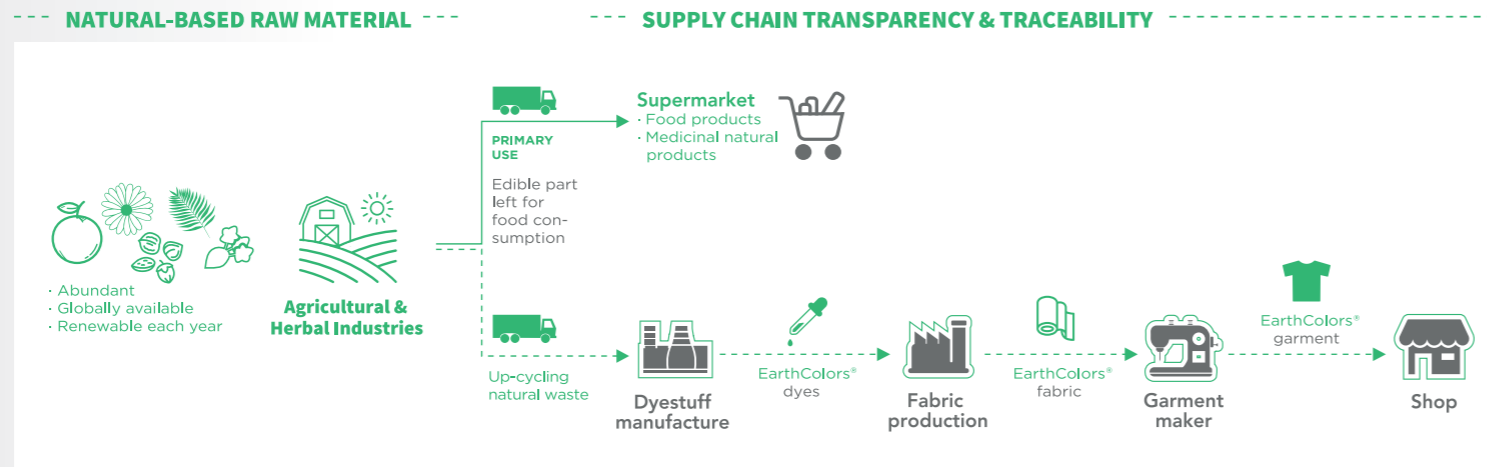
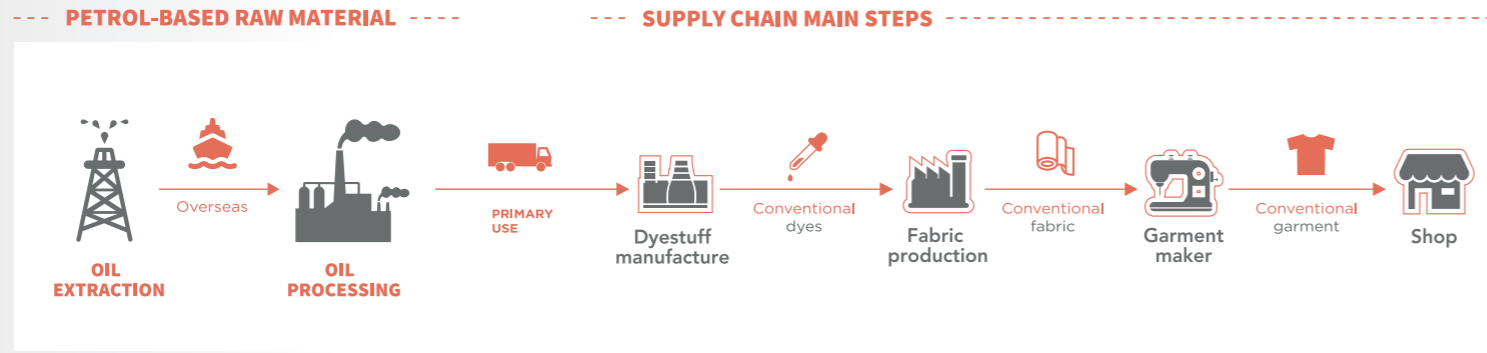


**CONVENTIONAL DYES**

**VS.**

**EARTHCOLORS® TECHNOLOGY**

Creating new life by up-cycling waste from other industries



# RE-INVENTING DYESTUFF, WHERE NATURE MEETS TECHNOLOGY

With the boom of the petrol-based chemical industry at the turn of the 20th Century, synthetic dyestuffs of higher performance and bigger volumes started to be commercialized around the world.

**EarthColors® is Archroma's patented new method of synthesizing dyes to produce warm shades from nature.**

Archroma's EarthColors® technology creates fully traceable biosynthetic dyes derived from natural waste products of the agriculture and herbal industries; leaving the edible part still available for food consumption.

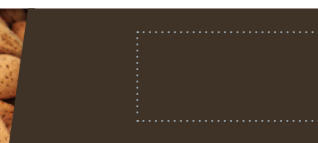


## CREATING A NEW, COLORFUL LIFE FOR AGRICULTURAL & HERBAL WASTE

EarthColors® are available in a range of six dyes that are made from waste left over by the agricultural and herbal industry, covering a palette of natural shades for cellulosic based fibres such as cotton, viscose, linen, bamboo, kapok, etc.

### **Diresul® Earth-Oak**

manufactured using 100% ALMOND SHELLS from the food industry



EARTH-OAK

### **Diresul® Earth-Cotton**

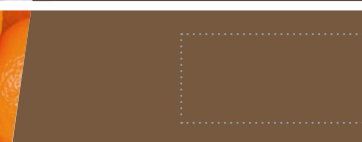
manufactured using 100% COTTON PLANT residues from the cotton industry



EARTH-COTTON

### **Diresul® Earth-Sand**

manufactured using 90% BITTER ORANGE residues from the herbal industry



EARTH-SAND

### **Diresul® Earth-Clay**

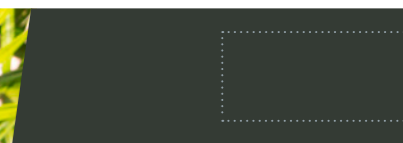
manufactured using 90% BEET residues from the food industry



EARTH-CLAY

### **Diresul® Earth-Forest**

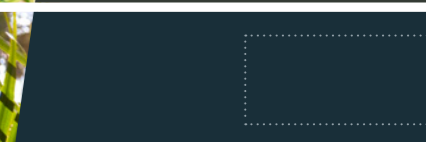
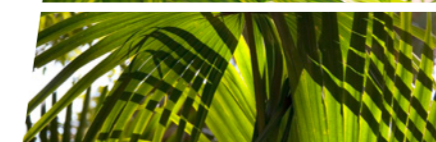
manufactured using 90% SAW PALMETTO residues from the herbal industry



EARTH-FOREST

### **Diresul® Earth-Stone**

manufactured using 70% SAW PALMETTO residues from the herbal industry



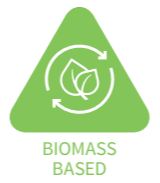
EARTH-STONE



# PROTECTING THE PLANET AND ITS PEOPLE

With EarthColors® we are able to produce cleanly, closing the loop, and respecting the environment

Our EarthColors® technology helps to reduce the negative impact on the water footprint, and preserve human wellness, natural resources and climate change compared to conventional synthetic dyes\*. Moreover, the fact that waste is up-cycled from other industries contributes to a circular economy.



Using natural waste based raw materials has no negative impact in any other steps of the dye manufacturing, such as water and energy consumption or waste generation. During the synthetization of EarthColors®, 100% of the natural raw material is transformed into a new dyestuff, guaranteeing full waste management into our production.

\*Based on internal LCA comparative screening



## AWARDED TECHNOLOGY, CERTIFIED ENVIRONMENTAL BENEFITS



EarthColors® was honored with the prestigious Outdoor Gold Industry Award 2017 in the Sustainable Innovations category.

EarthColors® dyestuffs are bluesign® and GOTS approved.

\*Archroma's Earthcolors® dyes are suitable for Cradle to Cradle platinum certification.



**Check** our latest updates **at**  
[www.earthcolors.archroma.com](http://www.earthcolors.archroma.com)

## FREQUENTLY ASKED QUESTIONS

### **Are EarthColors® suitable for all fibers?**

At present, they are available for cellulosic fibers such as cotton, viscose, linen, bamboo, kapok, etc. Our experts in R&D are continuously working on making EarthColors® suitable for other fibers.

### **How is EarthColors® technology commercialized?**

EarthColors® is currently exclusive to brands & retailers. EarthColors® dyestuffs are only supplied to approved textile mills, supporting the efforts of the brands & retailers towards transparency and traceability.

### **What's the applicability for EarthColors®?**

Archroma's dyes, manufactured using patented EarthColors® technology, can be applied using dyeing technologies well established within the textile industry. EarthColors® dyes are suitable for yarn and woven continuous dye equipment, as well as garment dyeing facilities under closed atmospheric conditions.

### **What's the performance level of EarthColors®?**

Archroma's dyes, manufactured using patented EarthColors® technology, have good affinity for cellulosic fibers and during the dyeing process they are directly linked to the fiber by covalent bonds. Therefore, EarthColors® dyes equal the

fixation rate, fastness and overall performance of Archroma's existing range of sulfur dyes made from conventional petroleum based raw materials.

### **Where are EarthColors® currently produced?**

Archroma uses its dyes facility outside Barcelona with state-of-the-art manufacturing equipment specially adapted to produce Archroma's dyes using patented EarthColors® technology. Raw materials are mainly sourced within 500 km from the production site.

### **Are EarthColors® REACH registered?**

Archroma's dyes, manufactured using patented EarthColors® technology, are exempt of REACH regulation because both raw material and final product are not considered harmful for human health neither environment.

### **Is any brand already using EarthColors® at Scale?**

Yes, major brands & retailers from the USA, Europe, Asia and Australasia have already launched collections based on EarthColors®.

### **/ About Archroma**

Archroma is a global color and specialty chemicals company committed to innovation, world-class quality standards, high service levels, cost-efficiency and sustainability. Archroma is headquartered in Reinach near Basel, Switzerland, and operates with approximately 3000 employees over 35 countries. Through its three businesses: Brand and Performance Textile Specialties, Packaging & Paper Specialties and Coatings, Adhesives & Sealants, Archroma delivers specialized performance and color solutions to meet customer needs in their local markets.

Archroma helps people fulfill their desire for products that appeal to their emotions and senses for a greater life experience, by developing beauty- and performance-improving technologies applied to everyday products. Products enhanced, colors enhanced, performance enhanced – "Life enhanced".

**We touch and color people's lives every day, everywhere.**

**/ Thank you!**

For supporting  
the power of  
nature.







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