



PIGMENTS



TEXTILE

EN



ZETATERRA PIGMENTS

Mineral pigments
of natural origin



zaitex.com

ZAITEX
— R&D FOR FASHION TRENDS

ZETATERRA PIGMENTS

Mineral pigments
of natural origin



The majority of **ZETATERRA Pigments** are compliant with the following voluntary third-party certifications *



ZAITEK is a bluesign®
system partner



GOTS Approved Additive
Approved by: ICEA
GOTS-ICEA-05-003



ZDHC MRSL v3.1

EVERSAVE APPROACH

ZETATERRA Pigments belongs to ZAITEK's eco-friendly project called **EVERSAVE**: our approach to lead our customers to an effective **innovation** through the **optimization** of garment dyeing & finishing process.

ZETATERRA Pigments is suitable for:

- high reproducibility
- low operating temperatures - max. 50°C
- low energy consumption
- easy wastewater treatment:
 - no electrolytes
 - possible treatment of the dye bath through its simple filtration



EVER SAVE

WHERE DO THEY COME FROM?

“Terra” is an Italian word that means “**earth, ground, soil**”, the natural source from which our **ZETATERRA** Pigments come from. This range of pigments of natural origin is the response ZAITEX would like to give to the constantly growing market request of making use of eco-friendly pigments.

This new series allows you to get beautiful washed down effects for original fashion results on garments. Most importantly, these pigments have very high overall fastnesses. This lets **ZETATERRA** Pigments differentiate from traditional natural ones, very poor in fastness results, especially for light test.

Unlike vegetable or animal dyes that usually lack bright shades, **ZETATERRA** Pigments feature a wide range of shades, from pale to very bright colors.

ZETATERRA Pigments are obtained by following a few but crucial steps in their processing: let's see how they are made below.



SOURCE

It's from the ground that **ZETATERRA** Pigments come from, the source from which they are taken.



QUARRIES

The ground is being mined into small pieces coming from several small quarries in Italy & abroad.



RE-COVER

The quarries from which the terrain is mined is being re-covered to ensure its lifecycle.



MANUFACTURING

The small stones of terrain coming from quarries are being grinded and processed for ennobling the colored powder.



QUALITY CONTROL

The final product becomes a high quality standard colored powder suitable for several applications, including dyeing.

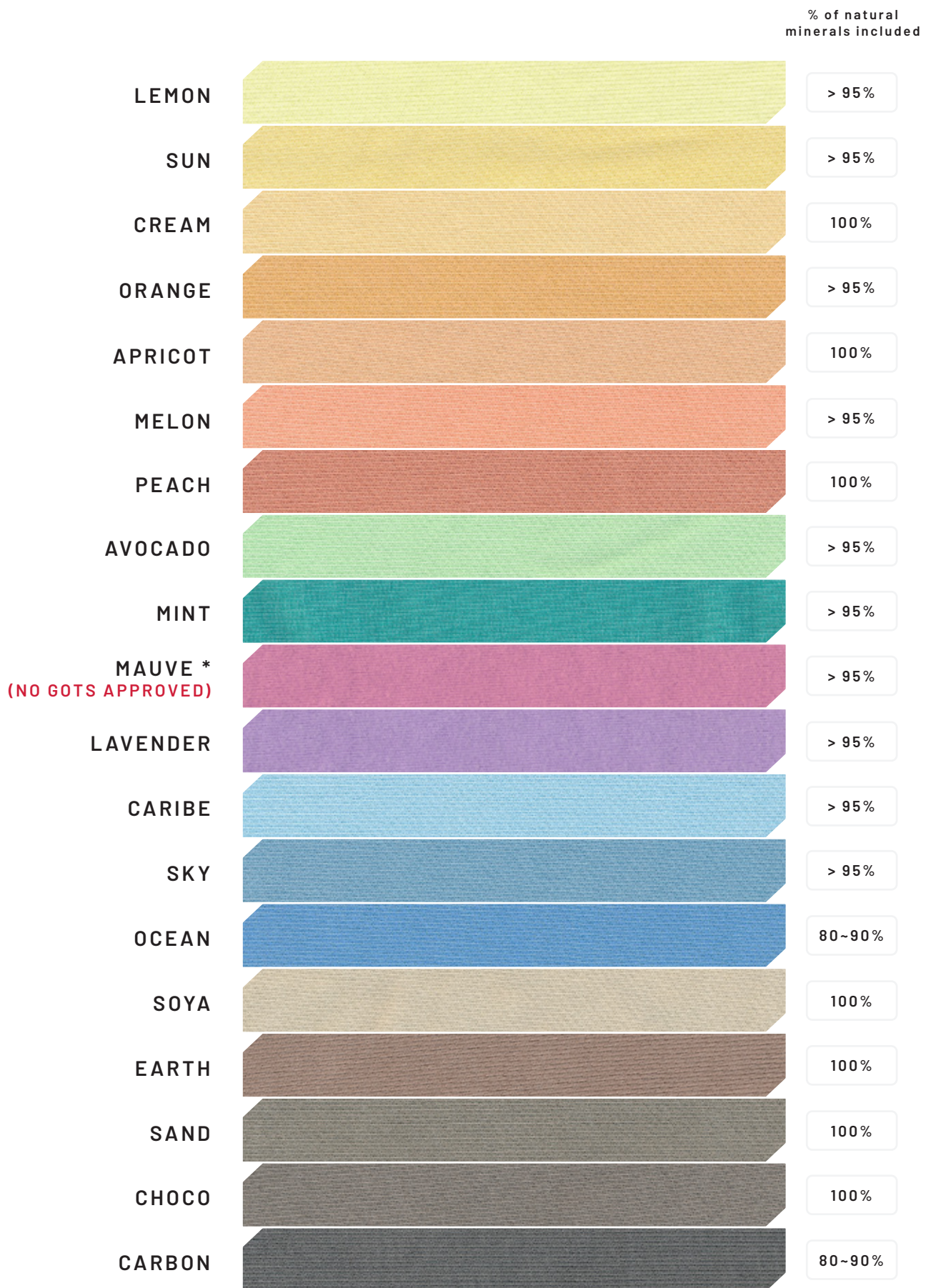


ZETATERRA

What nature makes us available to use & re-use becomes a pigment for the dyeing of garments.



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Samples dyed on 100% Cotton - Pigments concentration: 10%



- TRICHROME DYEING FOR A WIDE RANGE OF COLORS
- IDEAL FOR DYEING COTTON / WOOL / POLYAMIDE
- HIGH REPRODUCIBILITY

COMPARISON BETWEEN DYES & PIGMENT

IF COMPARED WITH VEGETABLE OR SYNTHETIC DYE STUFFS,
ZETATERRA PIGMENTS RANGE HAS STUNNING FEATURES
WE SUMMARIZE AS FOLLOWS.

Considering they are mineral pigments of natural origin,
they represent an **affordable** and **cost-effective** alternative
for garment dyeing and above all an **eco-friendly** solution
to exploit for marketing purposes.

		VEGETABLE DYES 	SYNTHETIC DYES 	ZETATERRA PIGMENTS 
 FASTNESS RESULTS	<i>Light / Rubbing / Washing</i>	very poor	good / very good	good / very good
	<i>Max dyeing temperature</i>	70 ~ 80°C	60 ~ 98°C	50°C
 DYEING PROCESS FEATURES	<i>Reproducibility</i>	low	high	high
	<i>Energy consumption</i>	medium	high	low
	<i>Ternary combination</i>	no	yes	yes
 MAIN FEATURES	<i>Shades availability</i>	limited	very wide	wide
	<i>Product availability</i>	low	high	medium
	<i>Avg. water consumption</i>	high	medium	very low
 MANUFACTURING ECO-FRIENDLINESS	<i>Avg. carbon footprint</i>	high	high	low

The data above are just for illustrative purpose only.



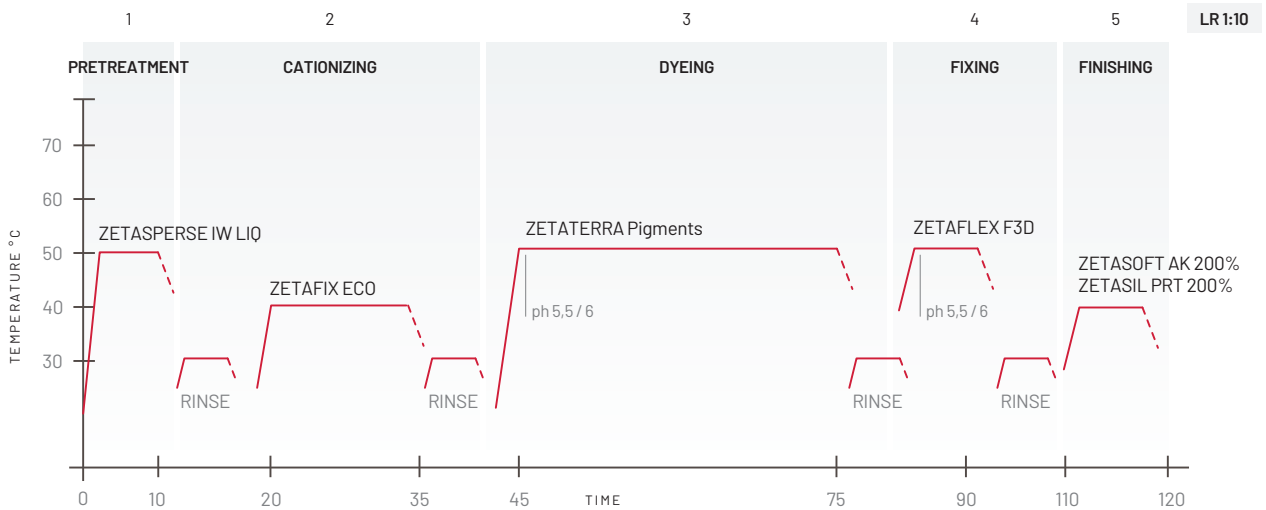
- ZETATERRA ARE DESIGNED FOR AN **OPTIMIZED WATER CONSUMPTION**
- **EASY WATER TREATMENT** (NO ELECTROLYTES, FILTERABLE PIGMENTS)
- **LCA-FEATURED CRADLE-TO-GATE**

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**DYEING PROCESS
IN DETAIL**

ZETATERRA Pigments selection allows good dyeing performance and unique eco-friendly characteristics.

Featuring a low operating temperatures - max. 50°C - and allowing a careful wastewater treatment, dyeing garments by applying ZETATERRA Pigments ensures a low environmental footprint while keeping up with market-driven fashion brands' requirements.



TREATMENT	APPLIED UNDER	ZAITEX PRODUCTS	Q.TY	DESCRIPTION
1 PRETREATMENT	50°C 10'	ZETASPERSE IW LIQ.	1 g/l	Scouring agent - ZDHC approved.
2 CATIONIZATION	40°C 20'	ZETAFIX ECO	5 - 10%	Cationizing agent - ZDHC approved.
3 DYEING	50°C ~ 30'	ZETATERRA Pigments	1 ~ 10%	Selection of eco-friendly pigments
4 FIXING	50°C ~ 10'	ZETAFLEX F3D	1%	Fixing agent - ZDHC approved.
5 SOFTENING	30 - 40°C ~ 10'	ZETASOFT AK 200% ZETASIL PRT 200%	x%	Selection of cationic softeners and silicone based microemulsions to get the most requested "soft touch" effect in the market - ZDHC approved.



- HIGHLY OPTIMIZED PROCESS (MAX 50°C)
- LOW ENERGY CONSUMPTION
- EFFICIENT WATER USAGE

FASTNESS RESULTS

		UNI EN ISO 105-C06:A1S WASHING AT 40°C						UNI EN ISO 105-E04 ALKALINE PERSPIRATION						UNI EN ISO 105-X12 RUBBING		SUN TEST		
		AC	CO	PA	PES	PAC	WO	AC	CO	PA	PES	PAC	WO	DRY	WET	24H	48H	
	LEMON	4	4	4	4	4	4	4	4	4	4	4	4	4	3-4 / 4	4	5-6	5
	SUN	4	4	4	4	4	4	4	4-5	4-5	4-5	4-5	4-5	4-5	3-4 / 4	4	5-6	5
	CREAM	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5	4	4 / 4-5	3-4	4-5	4-5
	ORANGE	4	4	4	4	4	4	4	4	4	4	4	4	3	3-4	5-6	5	
	APRICOT	4-5	4	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4 / 4-5	3-4	4-5	4-5	
	MELON	4	4	4	4	4	4	4	4-5	4-5	4-5	4-5	4-5	3-4 / 4	3-4 / 4	5-6	5	
	PEACH	4	4	4	4	4	4	4	4-5	4-5	4-5	4-5	4-5	4	3-4	5-6	5	
	AVOCADO	4	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5	4	4	5-6	5	
	MINT	5	5	5	5	5	5	5	5	5	5	5	5	4 / 4-5	4	5	5	
	MAUVE	5	5	5	5	5	5	5	5	5	5	5	5	4 / 4-5	3-4	4-5	5	
	LAVENDER	5	5	5	5	5	5	5	5	5	5	5	5	4 / 4-5	3-4	4-5	5	
	CARIBE	4	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5	3 / 3-4	3-4 / 4	5	5	
	SKY	4	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5	3-4 / 4	3-4	5	5	
	OCEAN	5	5	5	5	5	5	5	5	5	5	5	5	3-4	2 / 2-3	5	5	
	SOYA	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	
	EARTH	4	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5	3-4 / 4	3-4	5-6	5	
	SAND	4	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5	3-4 / 4	3-4 / 4	5-6	5	
	CHOCO	4-5	4	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5	4	3-4	4-5	4-5	
	CARBON	4	4-5	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5	4-5	4-5	3-4 / 4	4	5-6	5	

The information included above are just intended to be as non-binding approximate data. The Customer has to run some trials before bulk production. No warranty.



- VERY GOOD LIGHT & WASHING FASTNESS
- LOW-COST & EASY TO APPLY
- MARKET-DRIVEN FASHION EFFECT



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Warnings: the information and recommendations presented here were written with the utmost care, but they can't be extended to cover every possible case. They have to be intended as non-binding guidelines and must be adapted to the process condition. The product - whether used singly or in combination with other substances - should undergo lab tests prior to bulk production. Our Company can not be held responsible for any negative results. The Customers take on full responsibility regardless of the result they are going to get.