



ADVANCED
DENIM

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Textile Chemicals
06.05.2010



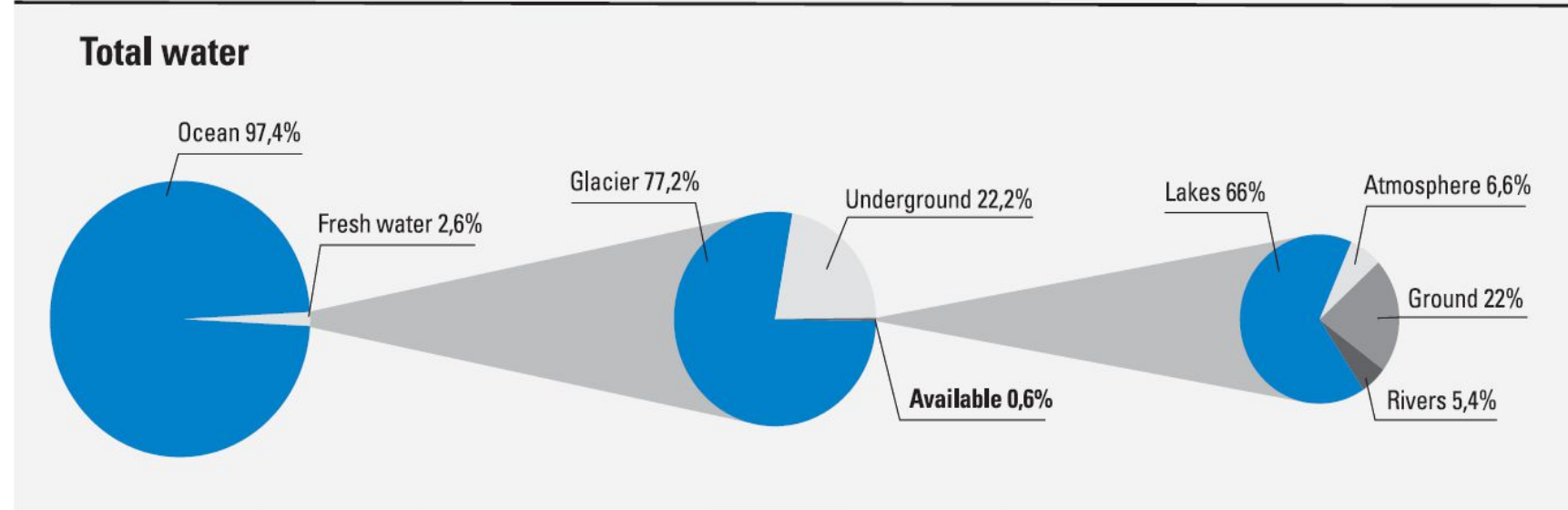
Exactly your chemistry.

ADVANCED DENIM

A TECHNOLOGY FOR LOW ENVIRONMENT IMPACT DENIM
DYEING AND FINISHING

INTRODUCTION: WATER RESOURCES ON EARTH

WATER DISTRIBUTION





THE ADVANCED DENIM CONCEPT

WATER AND DENIM:

1 Kg
apples 70 l

1 kg coconut
2.500 l

1 kg beef
15.500 l

1 kg
cheese
4.914 l

1 Cup coffee
140 l

For one pair of
jeans 11.000 l

1 kg barley
1.500 l

1Kg
Eggs
3.3400 l

1 Slice of white
bread 40 l

1 glass of beer
75 l

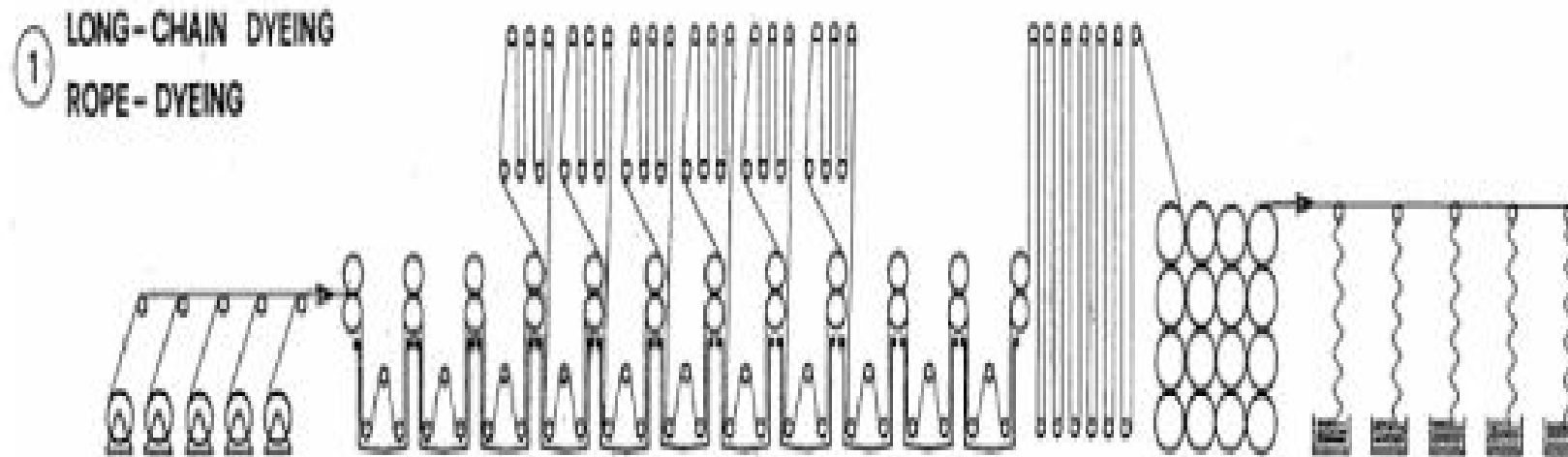
1 glass of
wine 120 l

*data source: The National Geographical Magazine

THE ADVANCED DENIM CONCEPT

THE CONVENTIONAL DENIM WARP DYEING

THE DENIM CONTINUOUS DYEING METHOD

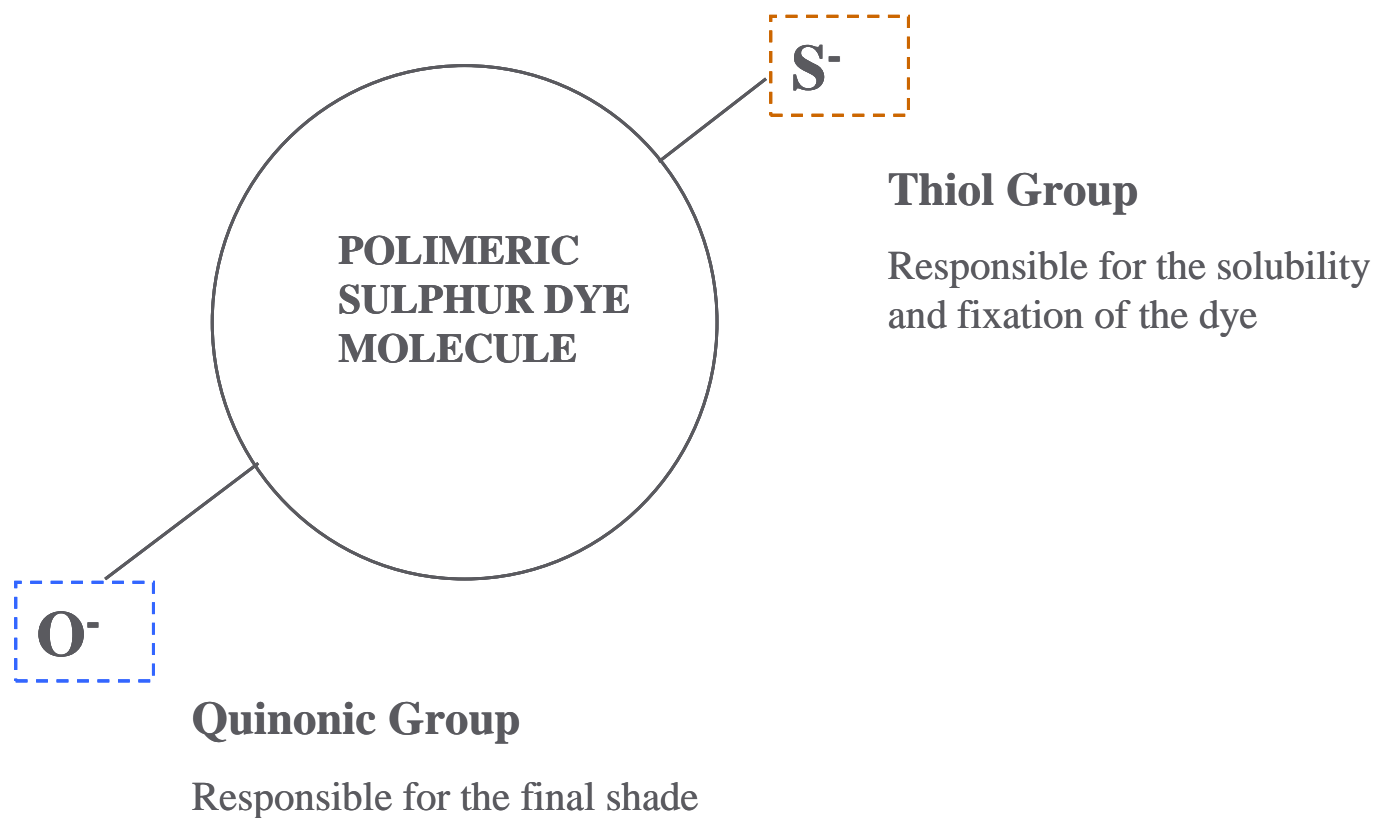




THE ADVANCED DENIM CONCEPT

THE ADVANCED DENIM CONCEPT: SULPHUR DYE MOLECULE

SULPHUR MOLECULE DIAGRAM:

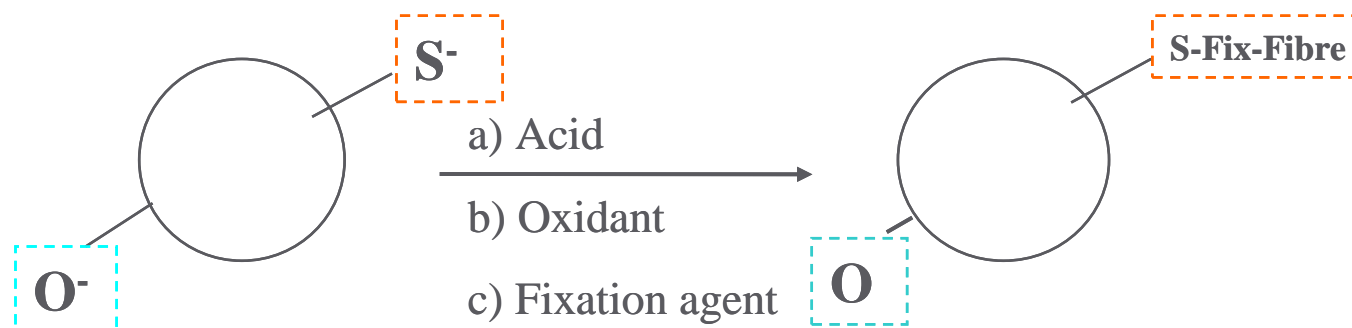


THE ADVANCED DENIM CONCEPT: FIXATION OF SULPHUR DYE

Step 1: Padding

Step 2: Skying

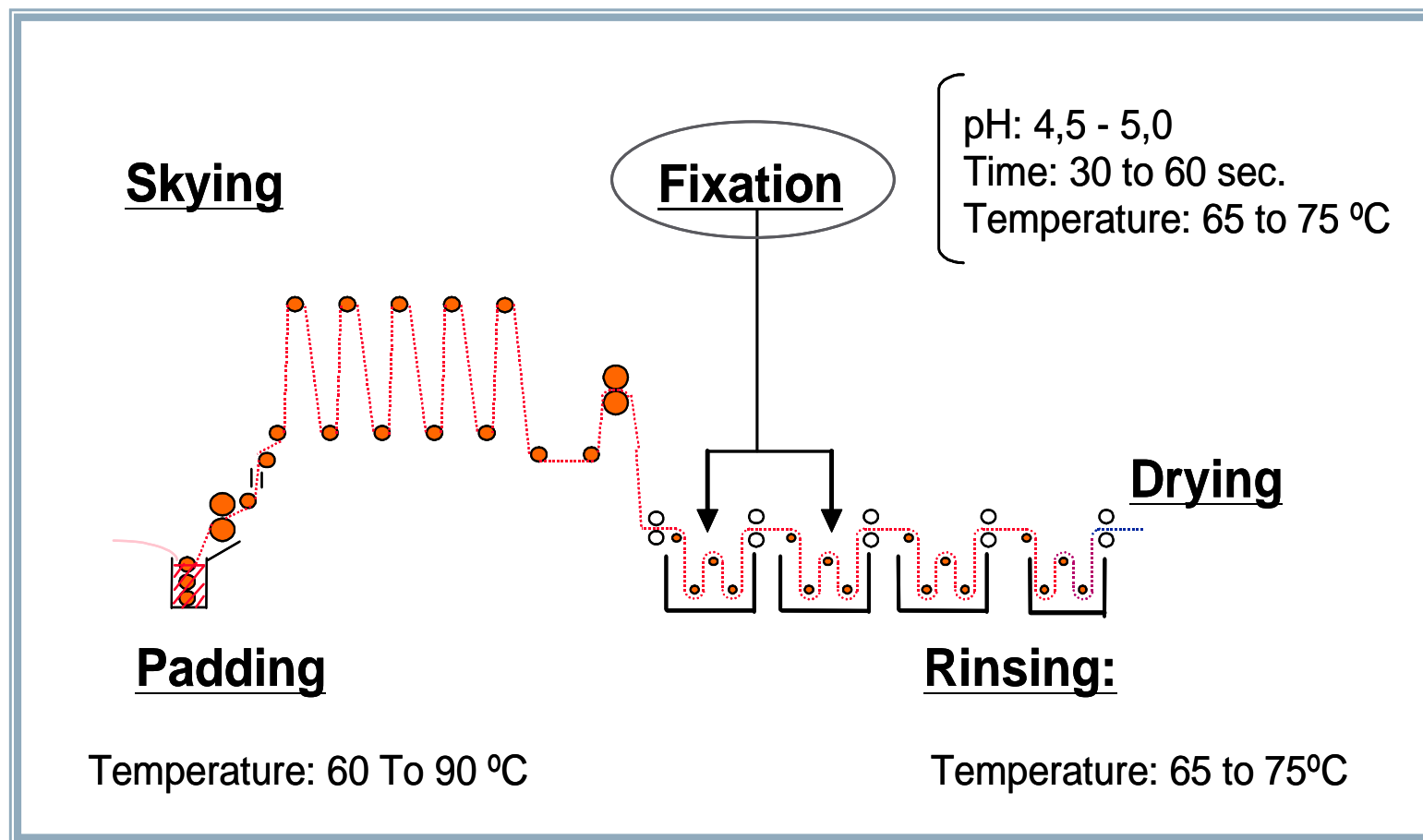
Step 3: **FIXATION**



Step 4: Rinsing

THE ADVANCED DENIM CONCEPT

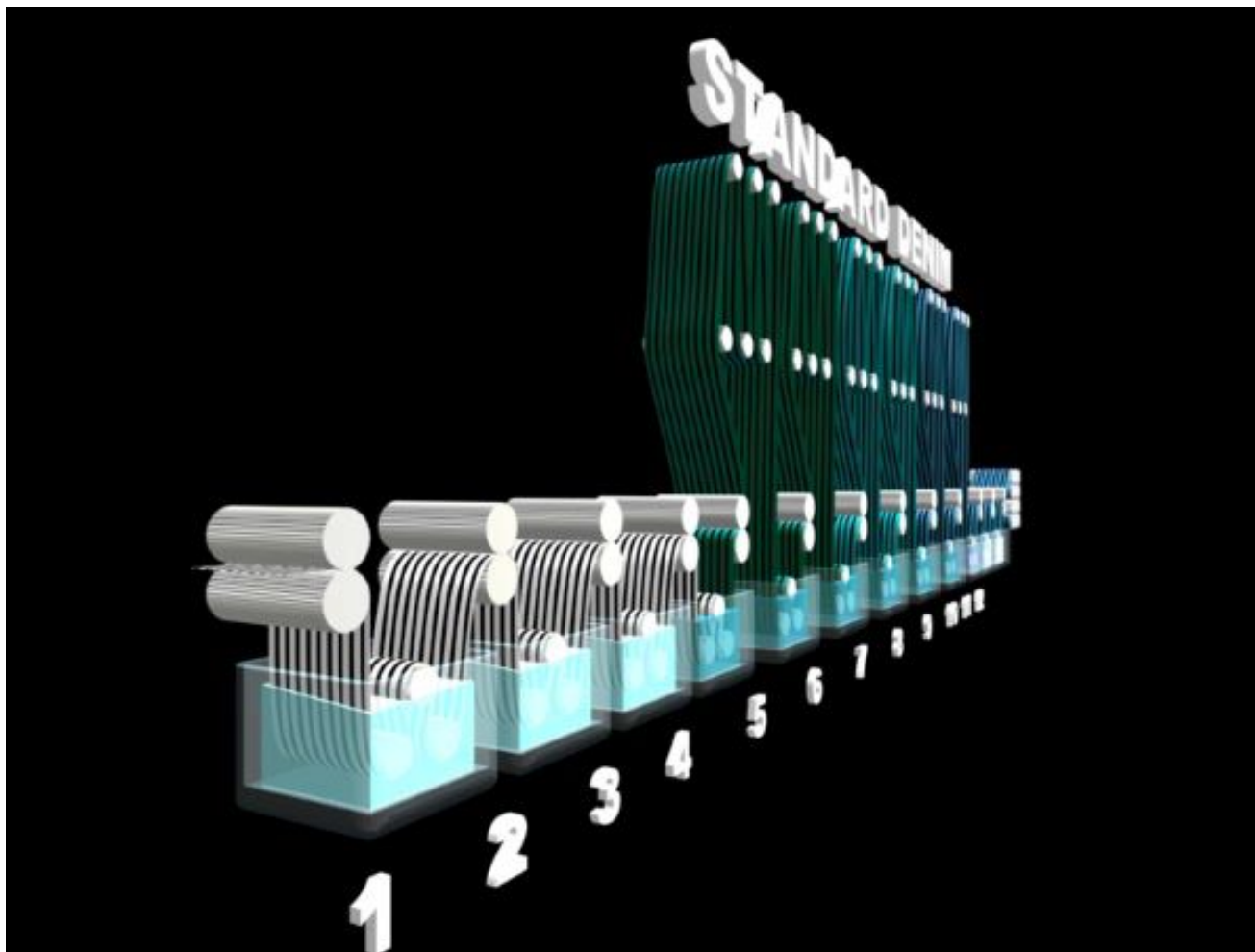
THE ADVANCED DENIM DYEING TECHNOLOGY





THE ADVANCED DENIM CONCEPT

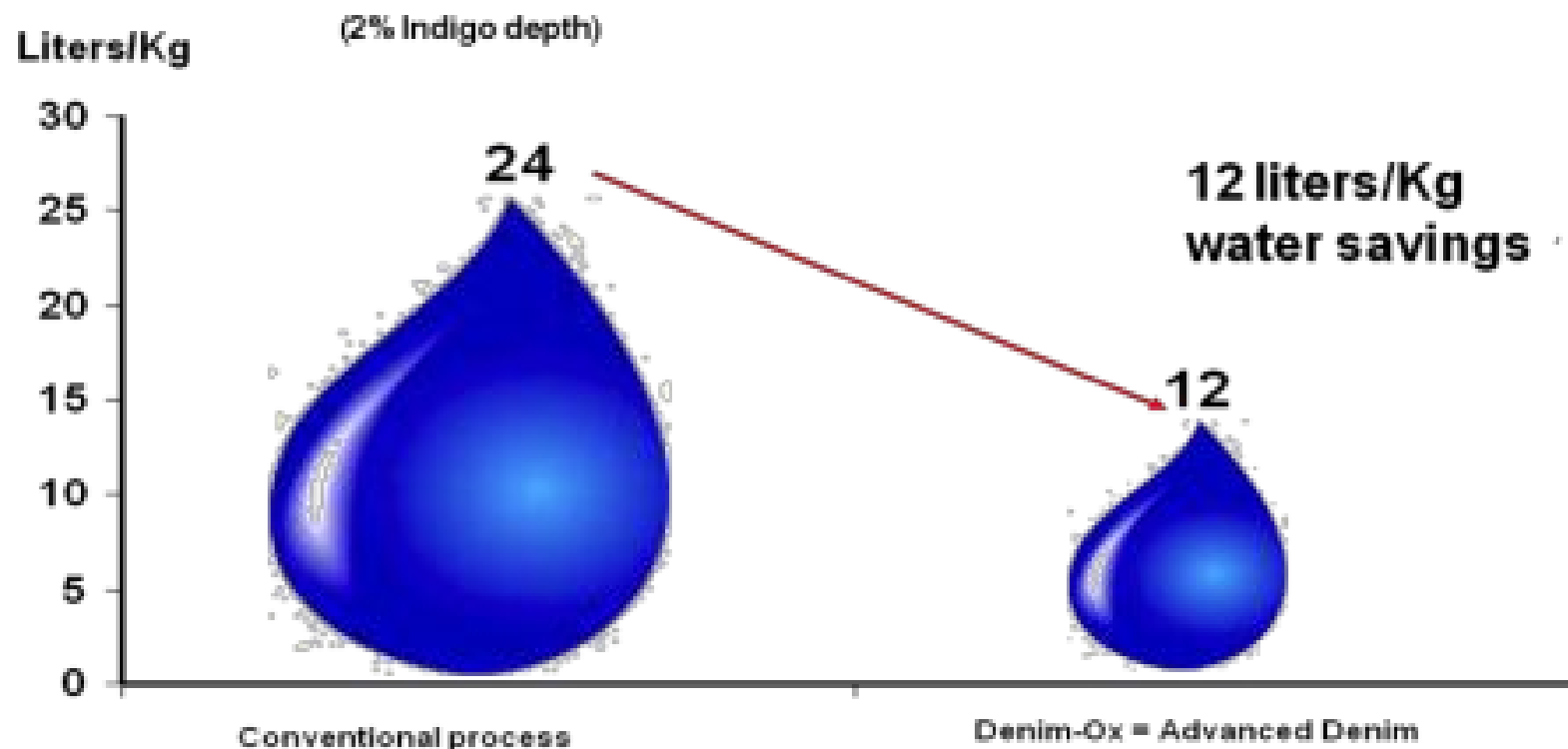
THE ADVANCED DENIM DYEING TECHNOLOGY





THE ADVANCED DENIM CONCEPT

WATER SAVINGS THROUGH ADVANCED DENIM: DYEING





THE ADVANCED DENIM CONCEPT

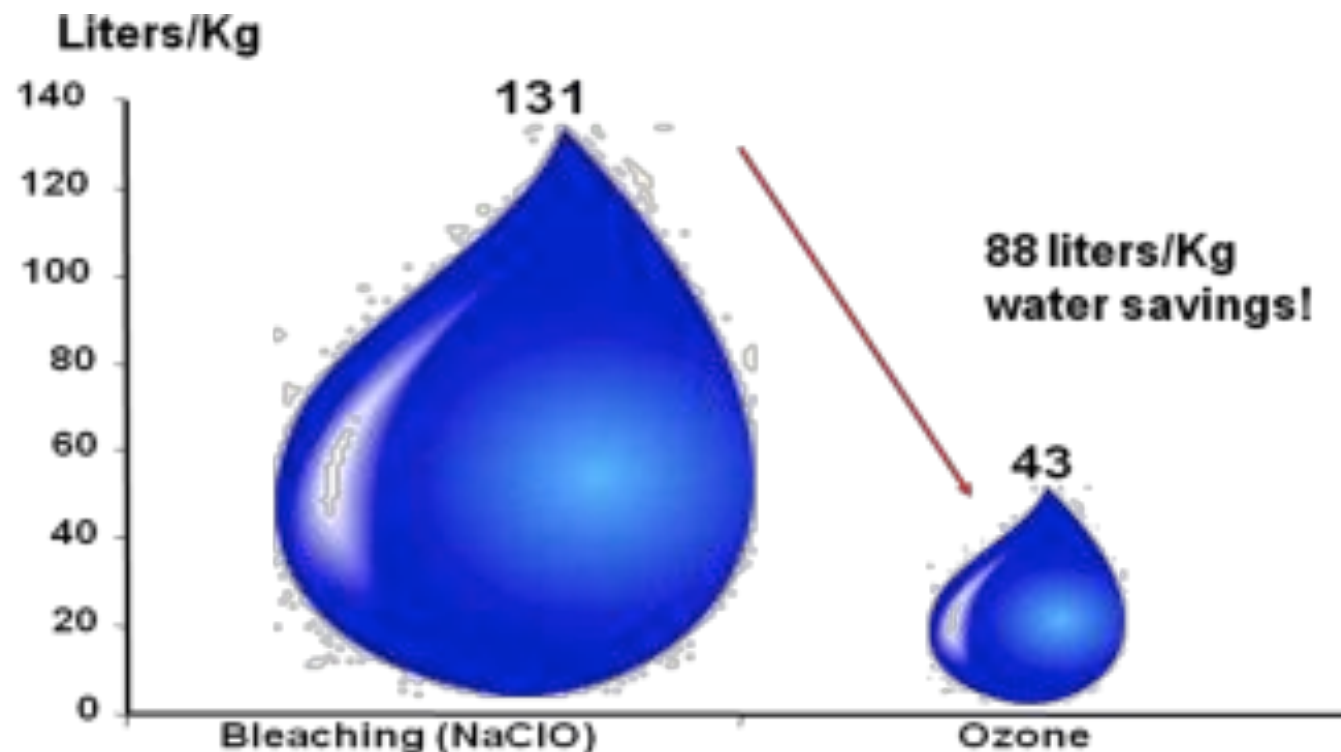
ADVANCED DENIM CONCEPT: EFFECT FLEXIBILITY





THE ADVANCED DENIM CONCEPT

WATER SAVINGS THROUGH ADVANCED DENIM: WASH-DOWN

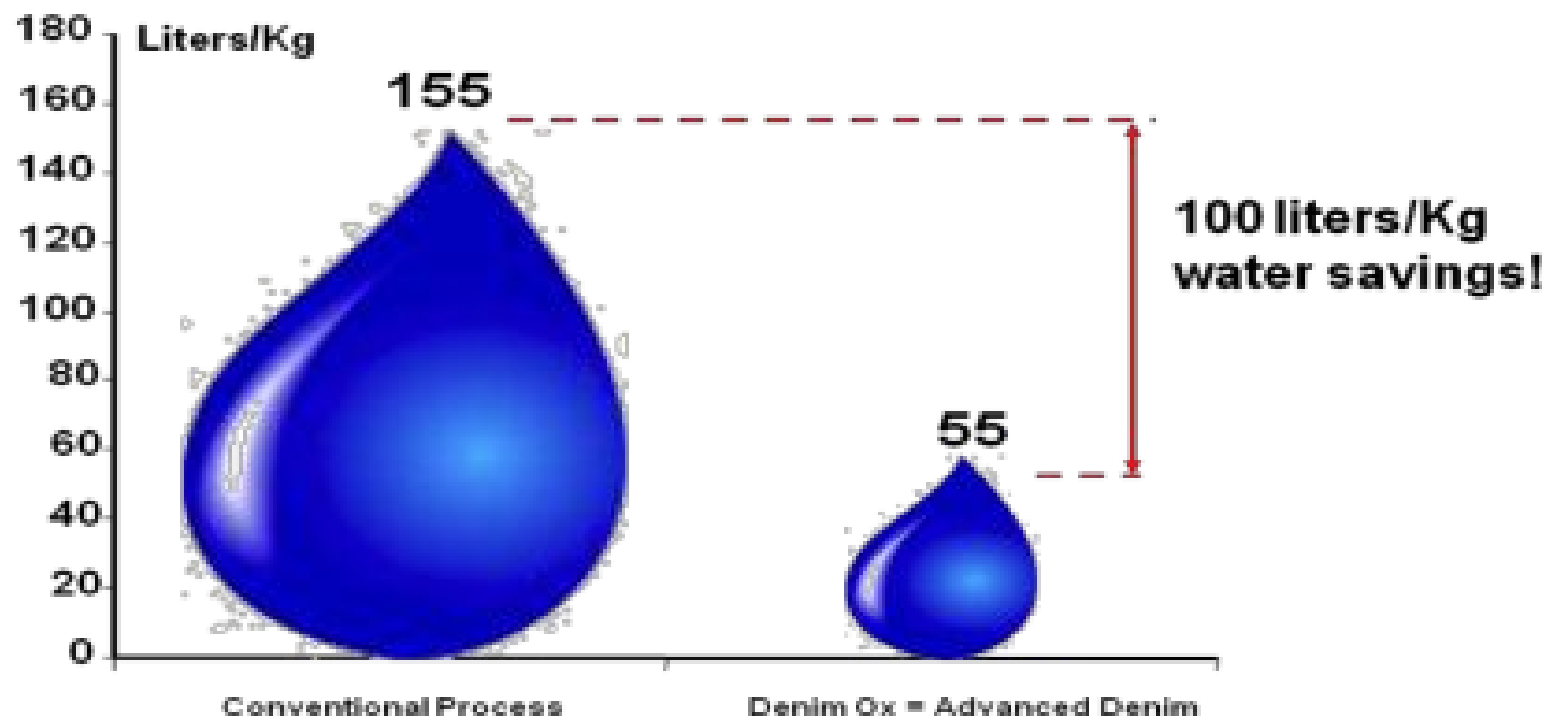




THE ADVANCED DENIM CONCEPT

TOTAL WATER SAVINGS THROUGH ADVANCED DENIM CONCEPT

DYEING AND FINISHING:





THE ADVANCED DENIM CONCEPT

ONE STEP AHEAD IN DENIM EVOLUTION



1860

- Denim beginning
- Work wear market
- strong & durable material



1930-70's

- Denim appear in movies
- popular market, revolution
- 100% Indigo



1980-2000's

- Denim is revolution
- fashion is priority
- Indigo + Sulphur dyes



2010 →

- New denim era is coming
- sustainable fashion a must
- efficient technologies



The eco-efficient denim
Maximum results with minimum resources

**DIRESUL RDT &
ARKOFIL DEN-FIX**

Eco-friendly processes, colorants, and special effects
- denim production with added value