









OPTIMIZED SAVE WATER SAVE ENERGY CHEMICALS

bluesign® APPROVED





REACTIVE DYESTUFF RANGE FOR NEBULIZATION SYSTEMS.

ASUFIX MICRO



Thanks to ASUFIX MICRO and its revolutionary process, now we are able to dye by micronization systems without using a single gram of electrolyte, offering as a result wastewater which can be reused again.

The new dyeing process has been designed to dye through nanobubble technologies at room temperature as well as offering a significant water reduction.

With ASUFIX MICRO process, the usage of chemicals has been highly optimized due the role played by nanobubbles, which are in charge of transporting chemicals from solution to fiber. Therefore, garments receive the exact amount of water and chemicals they need.

AN ECO-FRIENDLYREACTIVE RANGE WITH GUARANTEED RESULTS

ASUFIX MICRO is the first reactive dyestuff range which offers deep color shades with same properties as conventional reactive dyeing such as excellent washing fastness, dyeing at room temperature and without electrolyte application in any stage of the process.

Thanks to the thorough development of ASUFIX MICRO application method is possible to obtain a completely penetrated reactive dyeing on garments with a significant reduction of water and optimized use of chemicals, even in the most hidden areas.

In addition, the new ECO-FRIENDLY dyeing process ensures zero intermediate steps such as drying or spinning the garments, enhancing the process transference into industrial scale.



ASUFIX MICRO PROCESS

Prepare the following solution at liquor ratio 1/2*

x% ASUFIX MICRO dyestuff 10gr/L PRODER FSE 1gr/l ASUGAL RSL

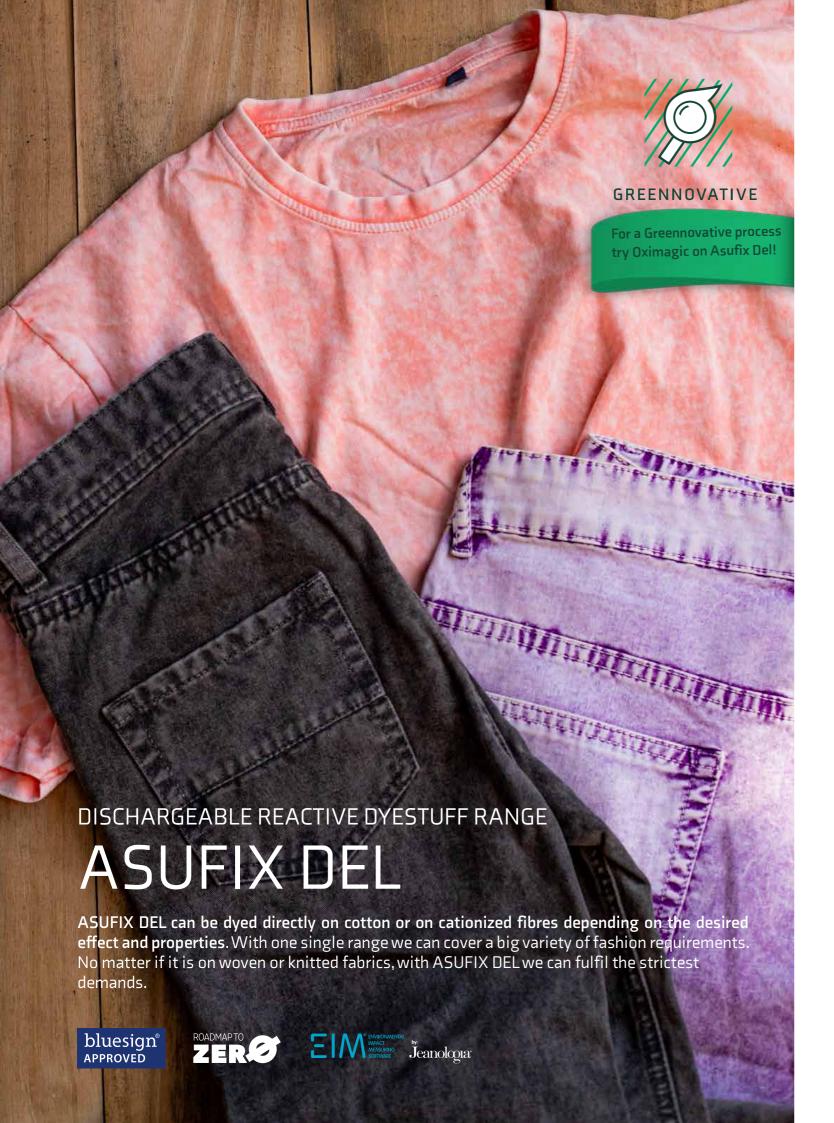
*Liquor ratio might be adjusted depending on kind of fabric.

•••• Micronize colour and auxiliaries' solution for 20' and maintain 20' more

Prepare 6ogr/l Soda Ash solution at liquor ratio 1/1.

•••• Micronize for 20' and maintain for at least 20' after micronization

Rinse, neutralize and soaping





ASUFIX DEL can be applied as conventional reactive dyes using exhaust methods either in fabric or garment form, or continuous methods such as Pad-Batch. It can be achieved either a solid look with excellent fastness or a very heavy worn out effect if finished with acid wash processes such as ASUMAGIC.

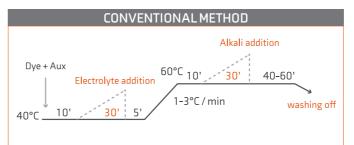
This is especially interesting on knitted goods where the worn-out effect is only achieved in most cases by means of this kind of techniques.

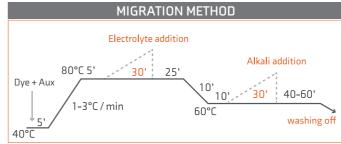


ASUFIX DEL can be applied on cationized fabrics to achieve a very superficial dyeing which is easily washed down with enzymes resulting into very nice contrast in seams and trimmings. In this case, we are combining a superficial dyeing together with Potassium permanganate sensitivity. This fact allows us to embrace a weary effect, as a result of contrast between washed down and discharged parts. With ASUFIX DEL we can create coloured Denim with the same properties as jeans. ASUFIX DEL range is sensitive to Ozone treatments.

ASUFIX DEL range is sensitive to Ozone treatments.

DYEING PROCESS FOR MAXIMUM WASH FASTNESS

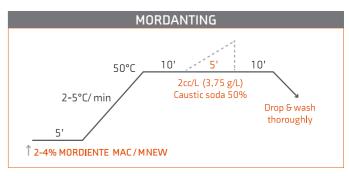


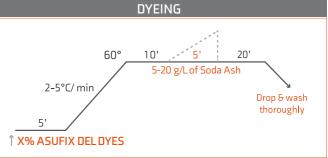


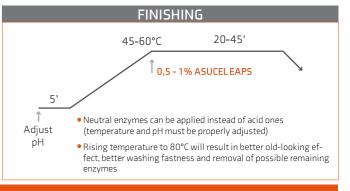
WASHING OFF PROCESS

BATH	COMMENTS
1	Cold rinse for 10 min. at 40°C
2	Cold neutralizing rinse for 10 min. at 40°C
3	Hot rinse for 10 min. at 80°C
4	Soaping with ASUGAL ABI 85 for 10 min. at 98°C
5	Hot rinse for 10 min. at 80°C
6	Cold rinse for 10 min. at 40°C
For dark shades a second bath with ASUGAL ABI 85 at 98°C is recommended	

DYEING PROCESS FOR WORN-OUT EFFECT

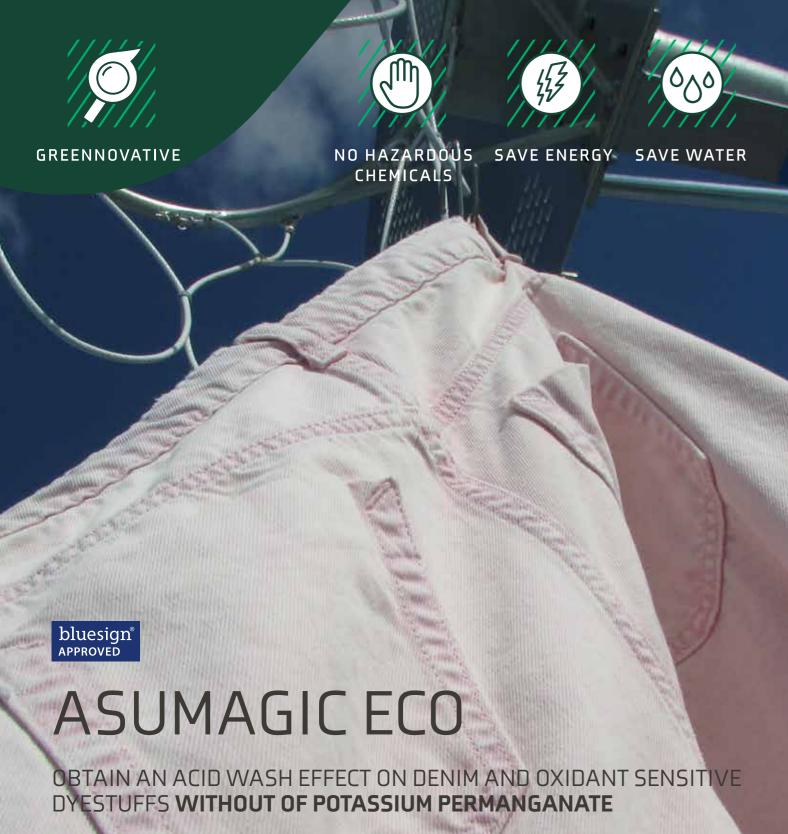






Potassium Permanganate discharge must be done using 20 g/L ACTIVANTE PREND PER except in the case of ASUFIX ORANGE DEL-R, ASUFIX RED DEL-B and ASUFIX GREYDEL-D





- > Free from hazardous chemicals, heavy metals, chlorine, formaldehyde, APEO, AOX, carcinogenic substances
- > safe for the operator: provides better work environment
- > cost saving in terms of water, energy and time
- > approved by the most important certifications bodies
- >Increased productivity: faster and reproductible way to obtain same worn out effects as conventional processes, such as towel bleach, acid wash, etc.
- > Easy control of parameters: temperature of drying does not influence to the final effect
- > Feasible reoperations: concentration can be adjusted according to final desired effect and garments might be stripped off and dyed again in case is needed.











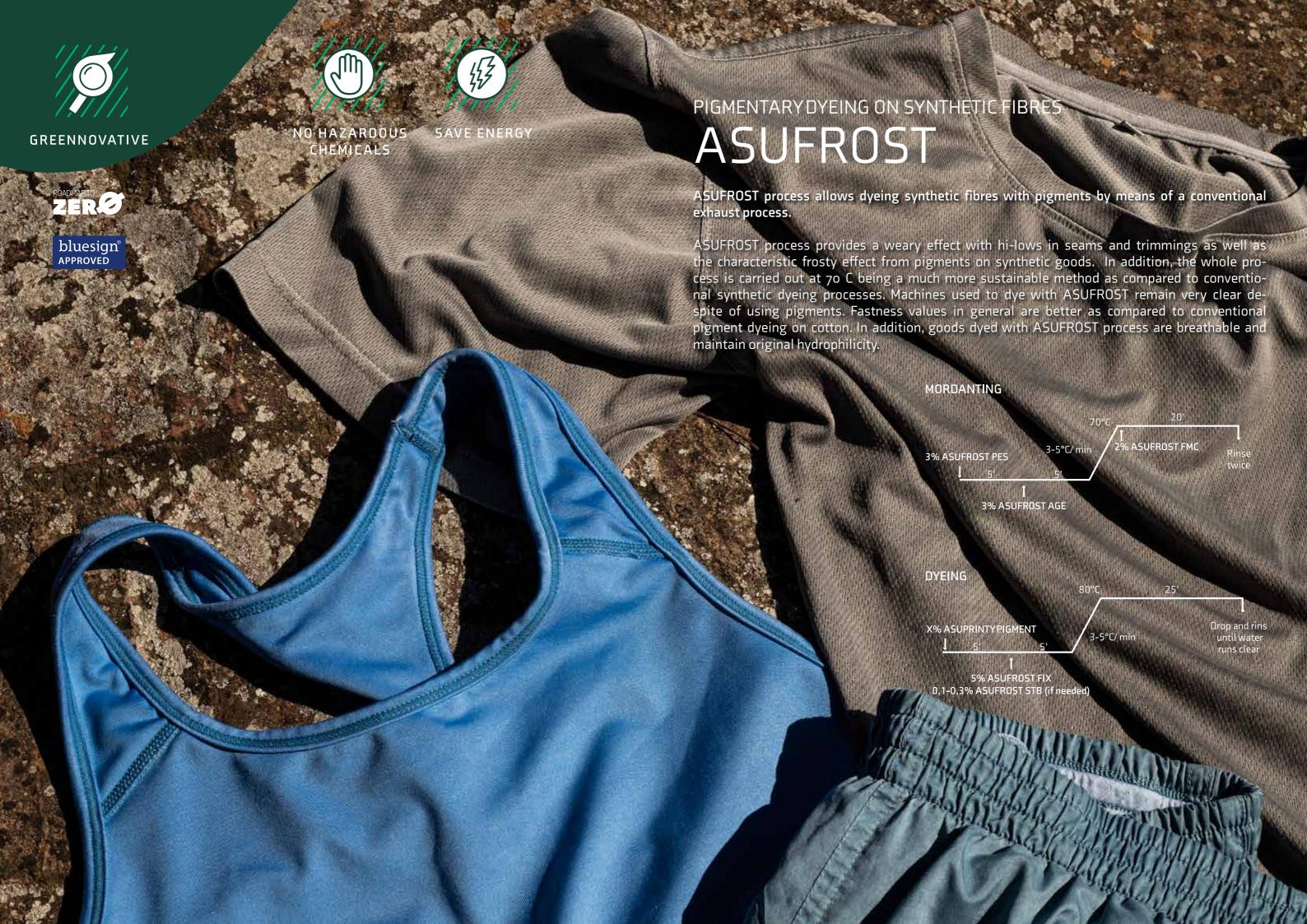
NO HAZARDOUS SAVE ENERGY SAVE WATER CHEMICALS

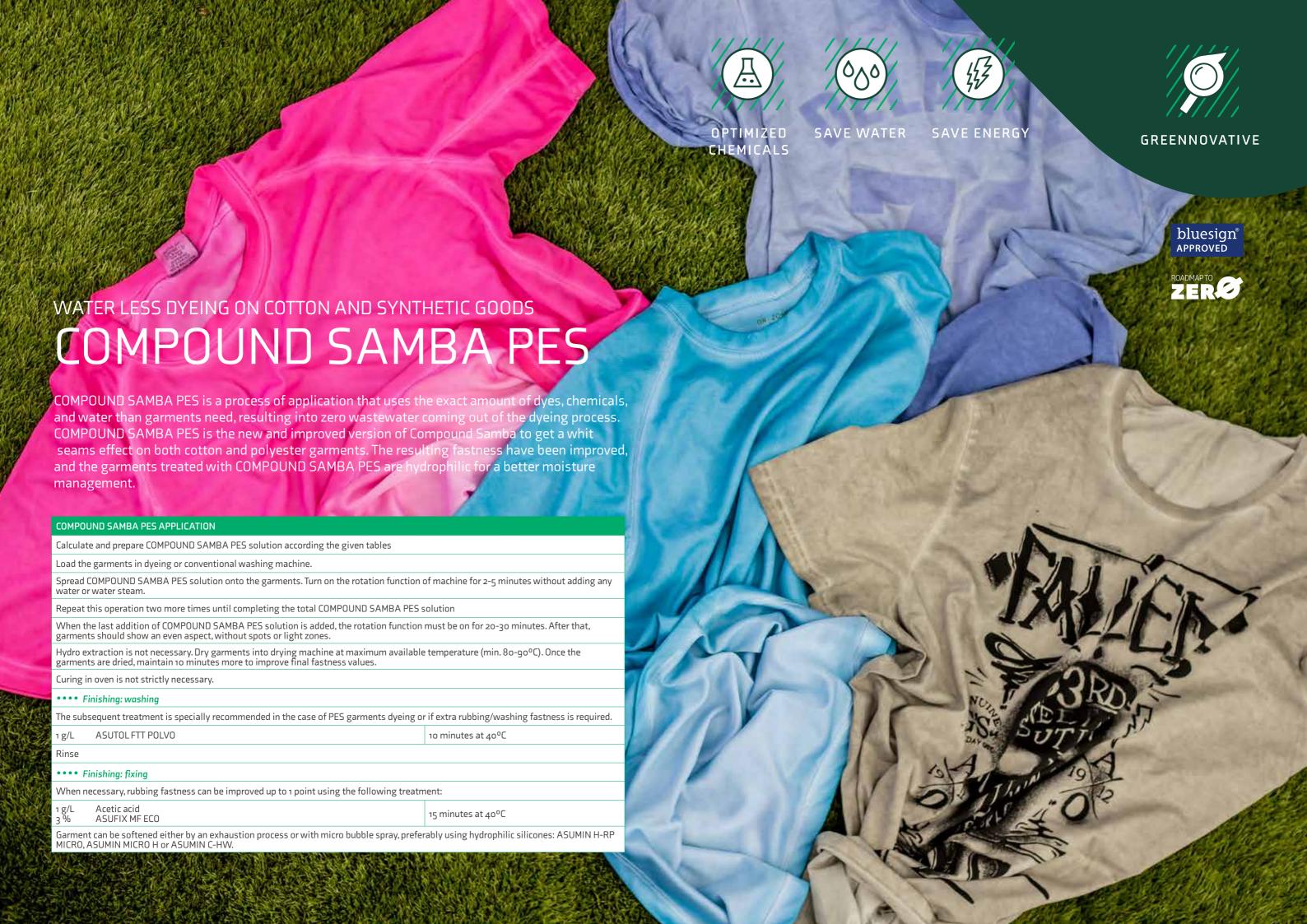
ECO WHITE AW

THE NEW SUSTAINABLE WAYTO OBTAIN FADE OUT EFFECTS AND WEARYLOOK **WITHOUT OF POTASSIUM PERMANGANATE**

- > Environmental impact reduced by avoiding both potassium permanganate and chlorine.
- > Safe for the operator: provides better work environment.
- > Free from heavy metals, chlorine, formaldehyde apeo, aox, carcinogenic substances.
- > Increased productivity: faster and reproductible way to obtain same worn out effects as conventional processes, such as towel bleach, acid wash, etc.
- > Easy control of parameters: temperature of drying does not influence the final effect.
- > Feasible reoperations: garments might be stripped off and dyed again in case is needed.
- > Concentration can be adjusted according to final desired effect.















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