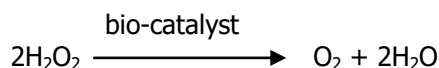


## AVCOSAN 3EP

### *ECONOMIC, ECOLOGIC, EFFICIENT-PEROXIDE ELIMINATION*

AVCOSAN 3EP is a liquid enzymatic bio-catalyst used for quick and complete elimination of hydrogen-peroxide at the end of peroxide bleaching processes. AVCOSAN 3EP has three main features: Economy, Ecology, Efficiency. The elimination reaction can be described by the following equation:



AVCOSAN 3EP is absolutely non-polluting product, and is not producing toxic by-products during peroxide destruction process.

### *SPECIFICATION :*

<b>Appearance</b>	Slightly brownish liquid.
<b>Chemical nature</b>	Aqueous enzyme preparation.
<b>Ionic nature</b>	Non- ionic
<b>pH (10% sol.)</b>	6.5 ± 0.5
<b>Density (gr/cc)</b>	1.06 – 1.12
<b>Solubility</b>	Soluble in water at any ratio.
<b>Compatibility</b>	Is not compatible with strong oxidizing materials, strong acids and alkalis. Sensitive to hot temperatures.
<b>Storage</b>	When stored in closed containers in cool place (5-20°C), shelf life is at least 12 months.

### *PROPERTIES & USES:*

1. AVCOSAN 3EP is producing a quick and complete destruction of hydrogen-peroxide which has not been completely used up in peroxide bleaching bath.
2. Residual peroxide is decomposed to natural elements of water and oxygen. No toxic residues are produced as is common with reductive substances based on sulphur or nitrogen compounds.
3. Use of AVCOSAN 3EP is ecologically beneficial, and the product is regarded as user friendly, as it is not chemically reactive and non-toxic at-all.
4. AVCOSAN 3EP is not affecting the textile fibres and the dyestuffs molecule. Residues of the product in reactive dyeing bath can not cause any harm to the dyeing results.

## ***Technical – Information***

5. Using AVCOSAN 3EP is saving number of rinse baths. This leads to considerable saving in water consumption, energy and machine time.
6. The elimination of peroxide by AVCOSAN 3EP has a rapid kinetic behaviour, which significantly reduces the treatment time.
7. AVCOSAN 3EP is foam free.
8. AVCOSAN 3EP is a liquid product, which is suitable for use for any kind of dosing machines.
9. Suitable for use in continuous and discontinuous processes.
10. Due to the quick and absolute elimination of hydrogen-peroxide residues from the bleached textile, the dyeing results will be more level, with no critical shade changes and maximum colour yield.

### ***APPLICATION :***

AVCOSAN 3EP is fully active at temperature range of 20-60°C, and at pH range of 4-9.

It can be used in continuous procedures, and in high liquor ratio processes.

### **A. Discontinuous machines (jet, winch, Jig)**

#### **PROCESS NO.1**

1. After bleaching has been completed, drain the bleaching liquor.
2. Rinse with water at 50°C, add acetic-acid to adjust pH to 6-7.
3. Add 0.2-0.5 g/l AVCOSAN 3EP and run at 50°C for 15 min.
4. Check for residual peroxide with a suitable indicator.
5. Drop bath. Add fresh water and start dyeing.

#### **PROCESS NO.2**

1. After bleaching has been completed drain the bleaching liquor.
2. Rinse with water at 50°C, add acetic-acid to adjust pH to 6-7.
3. Drop bath. Add fresh water. Check pH, should be lower than 7.
4. Add 0.2-0.5 g/l AVCOSAN 3EP and run for 15 min.
5. Check for residual peroxide with a suitable indicator.
6. Start dyeing.

### **B. Continuous machines (pad-steam, pad-roll, pad batch.)**

1. After bleaching process transfer fabric to an open width washing range.
2. To the last box, at temperature 20-40°C, and pH of 6-8 add 0.2 - 0.5 g/l AVCOSAN 3EP.

### ***REMARKS***

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The information given in this bulletin is, to the best of our knowledge accurate. It is intended to be helpful is not to be considered a guarantee.

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### ***Technical – Information***

Enzymatic preparations are sensitive to pH and temperature beyond the activity range. Use of AVCOSAN 3EP at temperature above 60°C, and pH above 10 may lead to a fast inactivation of the enzyme, thus resulting in a loss of effectiveness.