



ENZYMES IN PULP AND PAPER INDUSTRY: ENHANCING EFFICIENCY AND REDUCING ENVIRONMENTAL IMPACT

For any further information please contact:

AMFEP represents the manufacturers and formulators of enzyme products
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The function of Enzymes in Pulp and Paper industry

For decades, enzymes have been widely used in the pulp & paper industry due to their unique properties that facilitate the production of high-quality pulp & paper products and, at the same time, progressively reduce the use of chemicals in the industry – thereby significantly improving the ecological footprint of the sector and of the produced products. This way, enzymes have in fact been enabling the transition of the pulp & paper industry towards becoming more aligned with the EU policy objectives of the Green Deal, CSS, and of promoting sustainable products.

Several enzymes are used in various applications in the P&P industry. Just to name a few, enzymes can be used in fibre modification, bio-bleaching processes, and stickies control (to remove unwanted deposits and impurities coming from the furnish and improving final paper quality), among others.



Enzymes are driving sustainability in P&P industry

The P&P industry is highly innovative, with new applications for P&P products being developed continuously. While paper use is decreasing in certain sectors such as print media, its use is becoming increasingly attractive for other applications such as packaging. Enzymes contribute to the significant reductions of electricity used in the process, CO₂ released, and the use of traditional processing chemicals. For example, enzymes used in bio-bleaching processes can reduce the amount of bleaching chemicals used traditionally in the bleaching process.



Enzymes are being used safely in P&P industry

The enzyme sector has over 50 years of experience ensuring the safety of enzymes in both occupational and consumer conditions, with a focus on product design and guidance to obtain exposures below the respective derived minimal effect levels (DMELs). In collaboration with P&P association CEPI, AMFEP has created a publicly available [guidance](#) for the safe handling of enzymes in pulp and paper manufacturing.