

Contribution to a brochure about projects sponsored by the German Federal Environmental Foundation, written by Dr. Hermann Fischer, Chairman of AURO AG, Braunschweig

The development and production of solvent-free paints and impregnations on a vegetable basis

Paints, lacquers and impregnations are among the chemical everyday products that have a particularly distinct effect on environment and health. Solvents, softening agents, monomers and biozides are only some of the components that feature serious ecological and toxicological risks during their extraction, production, application and use as well as regarding waste disposal.

Until now, eco paints were, to some extent, bound up with obvious compromises. Conventional water paints, for example, are not only based on binding agents from petrochemistry (acrylates), they also still contain considerable amounts of glycols that are injurious to health and environment. In spite of a scrupulous choice of consistently ecological raw materials, even ecological paints still contained relatively high amounts of solvents and, moreover, often had disadvantages relating to the painting practice (short renovation cycles etc.) that did not fully correspond to the aim of sustainability.

Within the framework of an ambitious research and development project with a total cost of 2.7 million DM, sponsored by the German Federal Environmental Foundation (DBU), the AURO AG succeeded in eliminating these disadvantages thoroughly. A new generation of natural paint products was developed that was optimized with regard to its toxicological, ecological and technological profile.

The new paints, stains and impregnations do not emit any solvent vapours into the air and, relating to the painting practice, show a quality so far unknown in the field of ecological paints. Since this was achieved without making any ecological compromise (the binding agent is made from exclusively regenerative raw materials), the new AURO paints constitute a milestone in the development of paint products.

The water-thinnable natural resin oil binding agent is produced on new production facilities. It is used in a number of solvent-free products including primers, impregnations, clear and coloured lacquers, wax products, floor sealers and woodstains. On account of this innovation, the AURO AG is the first paint producer having an assortment of paint products coming very close to the aim of a sustainable development directed towards a more ecological future.

Neutral tests have proved that the pretentious aims were reached. There are certificates on the technical ability according to the EURO Norm (EN) 927, there is the scientific proof of the extremely low emission of VOCs into the air, and there is also an unrestricted recommendation of these products from Germany's best reputed eco magazine for consumers, Öko-Test.