

# **Paints based on waste expanded polystyrene**

## **Abstract**

A formula for making paint was developed using waste expanded polystyrene foam (EPS) as a binder. This method replaces the alkyd resin in most commercial paint, which is derived from the byproducts of refining crude oil. Experimental results showed that 27% waste polystyrene foam can be incorporated in the paint formulation. Basic performance tests for EPS paint were conducted and evaluated, and the developed formulation was compared with commercial paint containing modified alkyd resin as a binder. Test results showed that EPS-based paint has some advantages such as excellent abrasion resistance, water resistance, alkali resistance, hardness, and adhesion characteristics.