

Bio-based PU,
EVA Foam
Materials and
Epoxy Resins

Bio-based Shoe
Adhesive, Primer

Recycled-Content
Polyester Polyols

Green Chemistry •
Sustainable Environment



About NANPAO RESINS

Established in 1963, Nan Pao Resins Chemical Co., Ltd is the adhesive leading brand in Taiwan and one of the top 3 shoe adhesive suppliers worldwide. Its main products are various types of adhesives, powder and liquid coatings, treatment reagents and shoe adhesives, eco-friendly and efficient hot melt adhesives, carbon fiber composite materials, etc. Adhering to a sustainable environment concept, Nan Pao Resins will continue to invest in the circular economy and the development of green products.

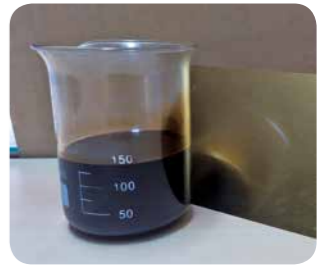
Nan Pao Resins has developed innovative technology, which uses wood, agricultural wastes, discarded polyester yarns and PET bottles as resources, and then apply to adhesives, coatings, functional textiles, and shoe materials. It is an important innovative technology that can reach the goal of sustainable environment and circular economy.



Product Overview

Bio-based PU, EVA Foam Materials and Epoxy Resins

Nan Pao Resins utilizes biomass materials obtained from vegetable oil, wood, agricultural wastes, and waste liquids from pulp and paper industries to develop bio-based PU and EVA foam materials. The bio-materials enhance the foam's hardness, tenacity and excellent deodorization properties, being suitable for production of furniture and insoles. Furthermore, Nan Pao Resins also develops the BPA-free epoxy resins made from bio-materials to eliminate the environmental hormone BPA harmful to the human health and the environment. The bio-based epoxy coating made of such resins has good flexibility, solvent resistance and adhesion to metals, which can be used in the coatings of metal cans, metal building materials and furniture.



Bio-based epoxy coating and metal coating



Bio-based PU and EVA foam materials are applied to insoles



Bio-based PU foam material is applied to the midsole (brown part)

Flow Chart of Bio-based Materials Application onto Resin Goods



Bio-based Shoe Adhesive, Primer

Use vegetable oil as raw material to manufacture shoe adhesive and primer. Compared with petrochemical synthetic adhesives and primer, the bio-based adhesive developed by Nan Pao Resins not only has excellent bonding strength, but also is more eco-friendly.



Excellent Bonding Strength

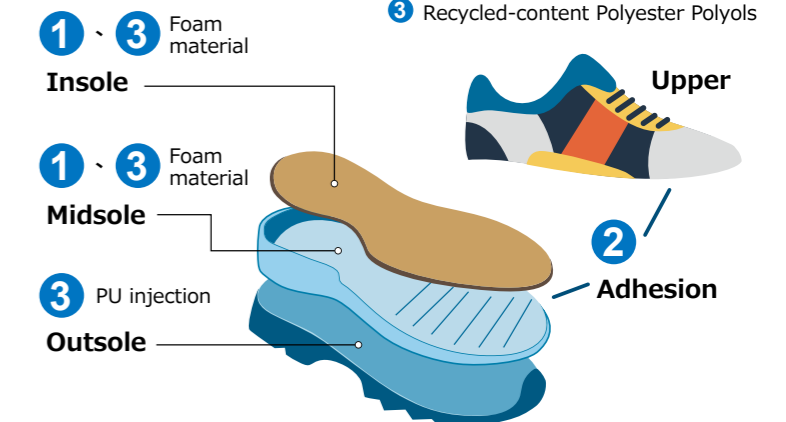


Suitable for Most Shoe Material Adhesion



Low Carbon Footprint

Application of Three Products in Shoemaking



Recycled-Content Polyester Polyols

Differing from the traditionally physical recycling process and methodology that has limited applications for the waste, Nan Pao Resins develops innovative chemical modification technology to convert discarded PET bottles and polyester yarns into raw materials for industrial applications - polyols. It can be applied to PU foam, PU injection materials, adhesives and coating materials, which are made into shoe materials, functional textiles, furniture and building materials, which raising higher recycling value of the waste.



PU adhesives were synthesized from recycled-content polyester polyols, that is applied onto the preparation of functional fabrics

