

Wonderflex

WONDERFLEX is an extruded thermoplastic composite sheet. It is comprised of a unique synthetic polymer that when heated in the range of 150-170 degrees Fahrenheit (70-80 degrees C), will soften and activate a built in adhesive for molding and forming. A layer of polyester mesh is located on one side for strength, reinforcement and stability. It is used for theatrical scenery and set designs, various props, costumes, animatronics, crowns, helmets and headgear, puppetry, armor, masks, prototypes, modeling, mascot heads, displays, headdresses etc. etc. even taxidermy, custom interior auto repair, furniture restoration and as a quick repair patching item like duct tape.

Activating Temperature:

- 150° - 170° 175-195 degrees Fahrenheit (80-90 degrees Celsius)
- Non-Toxic and Skin-Safe, can be used in classrooms, apartments, workshops and beyond without needing uncomfortable safety gear or complicated venting systems.
- ***Importantly Heat-activated plastics such as Wonderflex cannot be left in your car, the shed, or stored next to your radiator. (A car can reach an indoor temp of 80C in the sun, for example.)***

Tools:

- You can use a heat gun, hair dryer, or boiling water to activate Wonderflex.
- We recommend working on a heat-proof surface such as a wooden cutting board.
- Cut with household scissors when Wonderflex is cold or warmed up.
- When working with Wonderflex, use a silicone sheet or parchment paper to prevent it from sticking to your work surface.
- Soldering irons and heat pens and tools can be used to create details, but as with any thermoplastics, please make use of a professional respirator and safety goggles, as the smoke produced is toxic to inhale.
- Wonderflex sticks to foam. A permanent bond can be achieved by applying a thin layer of contact cement, letting dry for 15 minutes, and then applying your hot Wonderflex.

Priming and Painting:

- A smooth texture can be achieved by painting it with FlexBond, wood glue, gesso, or other thick primer and sanding between coats.
- Can be painted with acrylics, enamels, spraypaints, airbrush paints, gesso, automotive paint, or plastic patio furniture paint, depending on what primer is used.

Other great tips!:

- Works very well with Thibra thermoplastic (it is another heat-activated craft plastic that is totally smooth). Covering Wonderflex with Thibra eliminates Wonderflex's texture while adding great strength and durability.
- You can sculpt over/cover cardboard, foam core, wood, EVA foam, blue or pink insulation foam, etc to achieve desired shapes, as well as free-form it over shapes
- The mesh on Wonderflex does not form through the product when heated and shaped, even over complex curves. This means that the texture stays the same – similar to duct tape on the meshed side, and orange peel on the other.
- Wonderflex can take complex curves, both positive and negative. Edges may need blending, or cutting out the excess so there isn't a large amount of overlap.
- Wonderflex is not brittle.
- Because of the strong mesh, scraps can be harder to reblend, but are still very useful for small parts and repairs.