King Plastic Polymer Sheets Work Like Wood

Narrator: Plastic distributors and fabricators everywhere are discovering exciting new business opportunities when using polymer sheet stock designed to last a lifetime. King StarBoard® ST sheets will not rot, splinter, swell, weaken or delaminate. If you are unfamiliar with using King StarBoard® ST polymer sheet stock, no need to worry. The sheets are easy to fabricate using the same tools and techniques used in woodworking. Handled like finished plywood, with no finishing required, polymer sheet stock can be bent, cut, routed, welded and so much more. The possible uses are endless with a product that works like wood.

Although King Plastic ST polymer sheets will not easily scratch, scuff or wear, it is protected with a masking on one side to keep the sheet free from scratches. King StarBoard® ST can be routed with hand-held and CNC routers. CNC routers turn your CAD drawings into beautifully finished doors and trim quickly and efficiently. High speed steel or carbide tipped cutters quickly remove material leaving a crisp, slick edge. Door and drawer fronts can be contoured in nearly any shape, allowing you to transform an ordinary door into any design. You can also edge, profile, mill and engrave polymer sheets when using a CNC router. Hand routers can also be used to form edges creating a smooth, finished look.

King StarBoard® ST can be cut with all types of saws, band saws, circular saws, hand saws, table saws and jig saws. The optimum circular saw blade for cutting polyethylene is a 1/8-inch curved carbide tip 1.25 tooth per inch saw blade. Slower feed rates will minimize chatter marks on the cut edge. The surface of the material, which is in contact with the saw table or base should be protected by leaving the protected masking on the sheet. Cutting KingStarBoard® ST sheets does not produce noticeable airborne dust. Specially designed forming and bending heaters are available to heat a sheet of plastic for bending or forming into any desired angle. Cutting a V groove at the desired bend will make the angled bend much more precise and clean. These inexpensive precision tools heat thermoplastic sheeting up to ½ inch thick performing bends.

The combination of variable temperature control and two heating services adapts to a wide range of material sizes and thicknesses. Forming a radius can also be done by using a heat gun. Use a back-and-forth motion across the length of the sheet, both top and bottom, until the StarBoard® ST is soft enough to start bending. Do not get the heat too close to the material as blistering may occur and be aware the thicker the material, the longer it will take to form a desired radius. For the most secure part between two pieces of material, it is a good idea to first make a butt joint. Then tack welds are produced when the hot tool is run

along the seam or the two pieces of King StarBoard® ST are touching producing a thin film of polyethylene joining the two pieces together. Tack welding is not strong and is used primarily for positioning to allow another fastening method to be used.

King StarBoard® ST can be welded using a plastic hot-air welder. There are several types of plastic welders available. A polyethylene welding rod is required. The joints made with a plastic welder are as strong as the material itself and are highly recommended for edge joints. In some cases the plastic welding rod can be cut from the material to be welded, which allows for the weld joint to become virtually invisible. Using the pocket hole jig is the best and fastest way to create strong plastic joints with concealed fasteners. Pocket joints are similar to dowel joints except that a screw is used and only one joint element is to be drilled. The holes are drilled at a shallow angle on the back of the piece. These shallow holes can seal the fastener and create a very strong joint. When adding a countersink to the pocket joint, the two pieces of material are screwed together and the receiving piece of the material needs a space to expand into once the screw is set. A pocket joint makes the assembled pieces tight and secure. Tack welding is done before the last two pieces of material are screwed together. Here a support beam is in set then extrusion welded for a secure bond permanently welding the cabinet to the top. When you finished fabricating and assembling your components, simply add your hardware and the cabinet is ready to install.

King's StarBoard® ST material is self-lubricating so there is really no need for steel door slides, but if you want a really secure attachment and a smoother feel, stainless steel drawer slides work great. Chemically resistant plastics like polyethylene and polypropylene are not meant to be glued. Adhesives that are not specifically made for these types of plastic will not effectively glue the plastics. Any glue that you use may have only limited time effects.

Quality polymer sheets from King Plastic Corporation are ideal for all types of commercial and residential outdoor cabinets, furniture and storage, restroom partitions, signage, lockers, even antimicrobial furnishings for healthcare environments. King Plastic Polymer sheets work like wood and last a lifetime.