

SORBOTHANE® ADHESIVE RECOMMENDATIONS

The following information is advisory only. The user must verify the suitability of any combination of materials for the intended service.

- Sorbothane® is a thermoset, polyetherbased polyurethane.
- Sorbothane® has high surface energy compared to many other polymers. This generally indicates a readiness to bond with the right adhesives.
- Sorbothane® is not a foam.
- Sorbothane® is non-porous.
- Sorbothane® contains plasticizers.

A number of adhesives will breakdown upon exposure to the trace amounts of free plasticizers found in Sorbothane® and other similar polymers.

In house, Sorbothane, Inc. uses Loctite 401 and 3M Scotch-Weld EC100 for gluing.

Because Sorbothane® is non-porous, adhesives which require “air cure” after the parts are joined, will probably not cure (or cure only on air-exposed edges of the joint) if used to bond two sheets of Sorbothane® or to bond Sorbothane® with another non-porous material. These adhesives may cure when bonding Sorbothane® to a breathable material.

In the absence of contradictory information, one can reasonably assume Sorbothane® bonds with the same materials as other non-foam, non-porous, high-plasticizer polyurethanes. Correspondingly, solvents in glues, which cause problems for other polyurethanes will probably also degrade Sorbothane®. When in doubt, perform suitable testing.

Sorbothane, Inc. uses silicone-based mold release agents for most components. The surface silicone must be removed prior to attempting a bond. Parts can be washed with mild detergents, rinsed with clean water and air-dried. Alternately, rubbing the surface lightly with alcohol will clean off the silicone. Do not soak parts in water or alcohol prior to assembly.

Solvent-Based One-Part Polyurethane Adhesives

Lord Corporation 7650 is one suggestion. Lightly apply with roller or brush to either (NOT both) Sorbothane® or its mating material. Allow solvent evaporation per manufacturer’s instructions before lightly mating the contact surfaces. (10-20 minutes for 7650). You have a few seconds to adjust contact. Can be freely handled in a few minutes.

Two Part Polyurethane Adhesives

One choice is 7542A/B by Lord Corporation

Cyanoacrylates

There are many brands of cyanoacrylates (sometimes trademarked as Crazy Glues or Super Glues) which bond well with Sorbothane®.

One of the most desirable features of cyanoacrylates is that they bond very quickly. Either instantly or up to 30 seconds, depending on the formulation.

For our purposes cyanoacrylates should be divided into flexible and rigid types.

Rigid cyanoacrylates dry to a rigid joint. When flexed these joints will break down. A rigid cyanoacrylate should not be considered when bonding Sorbothane® to another flexible material.