



TECHNICAL SALES BULLETIN

SOLIDSEAL™

POLYURETHANE

ADHESIVE/SEALANT

SOLIDSEAL™ is a one component, 96% solids, fast cure, flexible, silicone free, rubber based, dual purpose adhesive/sealant. It is a moisture cured, non sag system. SOLIDSEAL™ provides a permanently elastic bond to most substrates.

DESIGNED TO BOND:

1. Various metals, including galvanized steel, stainless steel, cold rolled steel, and aluminum
2. Wood, particle board and plywood
3. Glass, concrete, masonry and rubbers
4. Fiberglass and fiber reinforced plastics
5. Thermoset plastics such as polyurethane, polyester, epoxies
6. Thermoplastics, such as ABS, nylon, PVC
7. Skylight & porthole materials
8. Heating & air conditioning (HVAC) materials

FEATURES:

1. One component, ready to use, fast cure
2. Odorless and particularly low volume shrinkage
3. Suitable for Marine applications - above and below water line
4. Silicone free; paintable with most paints
5. UV stable, heat and moisture resistant
6. Broad adhesion spectrum to most substrates
7. Non-staining characteristics on stone substrates
8. Solid seal meets NSF 51 rated R2.

TYPICAL PROPERTIES:

(Specification ranges available upon request.)

Base:	Polyurethane
Colors:	White, gray & black (custom colors available)
Viscosity:	Paste extrusion grade
Weight/gallon:	9.8 pounds
Specific Gravity:	1.17
	unopened container under 80° F

SOLIDSEAL™

POLYURETHANE

ADHESIVE/SEALANT (cont.)

TYPICAL LAP SHEAR STRENGTHS (PSI):

(Samples aged 30 days at room temperature; pulled at 2 inches per minute)

Aluminum to aluminum	486
FRP to FRP	280
Plywood to plywood	336
Galvanized steel to galvanized steel	406
Galvanized to Kemlite®	189

Temperature Range:	-40° F to 200° F
Shelf Life:	12 months when stored in original

TYPICAL PHYSICAL CHARACTERISTICS:

(Specification ranges available upon request.)

Tensile Strength after 30 days at room temperature:	199 psi
Ultimate Elongation after 30 days at room temperature:	700%
Shore A Hardness after 30 days at room temperature:	50

UV Resistance:	Very Good
Ozone Resistance:	Excellent
Creep Resistance:	Excellent
Sag Resistance:	Excellent

PREPARATION OF SUBSTRATES:

Surfaces to be bonded should be cleaned of all dust, oils or other contaminants. A solvent wipe is often adequate. Bonds to rigid surfaces are usually improved by a solvent wipe followed with light abrasion (180 grit), and solvent wiping to remove abrasive residue.

Dry surfaces thoroughly before applying adhesive.

METHOD OF APPLICATION:

SOLIDSEAL™ can be applied by ordinary caulking guns or pressure pumping equipment. Pumping equipment should be of the follower-plate type and have a pump ratio of at least 65:1. Aro, Binks, DeVilbiss, Graco and Lincoln all produce suitable equipment for handling this material. Consult Royal representative or equipment supplier to ensure installation of proper equipment (including moisture lock hoses and accessories) are in place before start-up. Apply a bead of SOLIDSEAL™ to one surface at temperatures above 40° F. Surface skin formation will occur in 40-60 minutes, depending on ambient conditions. Initial set time is 4 hours, after which parts may be handled.

Clamping, taping or use of mechanical fasteners to hold parts in place until SOLIDSEAL™ develops strength is recommended. After 24 hours at room temperature, the product is considered self-holding.

Strength build up is very fast in the early stages to give high holding power, with continued strength build up over time.

Stainless Steel to Stainless Steel (7 day RT aged) 236 (SS type 304-2B)

CLEANER AND THINNER:

Toluene, Methyl Ethyl Ketone

PRECAUTIONARY DATA:

Store in dark and cool place. Avoid excessive heat. During storage, moisture and water should be avoided. Reaction with moisture or water will cause quality deterioration, but will not be hazardous. For industrial use only.

DISPOSAL INFORMATION:

Disposal should be made by incineration or in accordance with applicable governmental regulations.

