

## PVA 180 Adhesive

### 1-COMPONENT ADHESIVE BASED ON A POLYVINYL ACETATE EMULSION

PVA 180 adhesive is a superior, water-based adhesive designed for the general purpose bonding of fiberboard, paper, cloth, fabric, leather and wood to themselves and to other substrates. Examples of applications include bookbinding and bonding hard and soft woods. The PVA 180 adhesive is suitable for bonding wood joints such as dowels, mortise-tenon, lock and finger joints. It is also suitable for building small wooden patterns or models. PVA 180 is not suitable for edge gluing or laminating wood parts or for applications with extended exposure to moisture or high humidity. PVA 180 may diluted with water for spraying or for applications such as sealing plaster, concrete, and other porous surfaces

Many variations on the standard PVA 180 Adhesive are possible including custom colors, alternate dry times, modified viscosities, and many other special properties. Please contact us to discuss your application if you think such a variant would be helpful for your application.

#### **APPLICATIONS & BENEFITS:**

- Meets MMM-A-180 type 1 & 2
- Excellent adhesive strength
- When dry, accepts stain and paints
- ingredients conform to Federal Register #21 CFR 175.105 and may be labeled as “food packaging adhesive”

<b>HANDLING PROPERTIES</b>		<u>VALUE</u>	<u>TEST METHOD</u>
Visual Appearance	Milky white	to off-white liquid (can be supplied in colors)	
Odor:		Sweet	
Density		1.11 g/cm <sup>3</sup>	ASTM E-201
Viscosity @ 25°C		4,500 cps	ASTM D-2393
Percent Solids (non-volatile %)		52% - 54%	
pH range:		5 – 6	
Freeze –thaw stability (frozen to-29C for 18 hours then thawed without stirring)		passes 5 or more cycles without significant changes in viscosity, compression shear strength or lap shear strength	
Drying time:	Clamp items to be bonded together for at least 8 hours at room temperature and <50% relative humidity. Functional drying (ex. Bonds strong enough to produce fiber tears in wood) will have developed after 8 hours, but the adhesive bond may improve further with additional time. High humidity levels during drying may extend the dry time.		

<b>PHYSICAL PROPERTIES</b>		<u>VALUE</u>	<u>TEST METHOD</u>
Color	Translucent, light yellow to amber		Visual
Peel Strength		>15 pli	
Compression Shear Strength			ASTM D905
Maple blocks		>2900 psi	
Plywood (3/4 inch thick)		>750 psi	

Lap Shear Strength (plywood, 3/4" thick)		ASTM D906
@ 25C	>900 psi	
@ 71C	>175 psi	
After 7 days @ 25C & 90% Rel. Humidity	>300 psi	
Flexibility – adhesive film on steel plate bent 180 degrees		

**NOTE** : Values are based on laboratory or average production results – not for specification purposes.

### **SUGGESTED PROCESSING GUIDELINES:**

Apply by brush, roller, dipping or spraying. If spraying, the emulsion may be thinned with small amounts of deionized water to produce a lower viscosity. However, the addition of water will reduce the solids content and will increase the dry time.

Apply to both surfaces to be bonded and then place the items in firm contact and clamp firmly in place with even pressure over the surface.

### **STORAGE GUIDELINES:**

Store this material in a clean, cool and dry environment in its tightly closed original container. Keep from freezing and if frozen immediately warm to room temperature rather than allowing to remain frozen. Tightly reseal containers after use to prevent evaporation. If the recommended storage conditions are observed the products will have a minimum shelf-life of 12 months from the date of shipment.

### **HANDLING PRECAUTIONS:**

Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheets.

### **PERSONAL HYGIENE:**

#### **PVA 180 Adhesive**

**CAUTION: AS WITH ALL INDUSTRIAL MATERIAL USE CAUTION WHEN WORKING WITH THIS MATERIAL.** Avoid breathing vapors. Avoid contact with eyes, skin, or clothing. Wear eye protection and impervious gloves when handling. Extending exposure could cause a slight irritation of the nasal passages, eyes, or skin. Wash thoroughly after handling. Use only with adequate ventilation. Do not take internally.

### **FIRST AID**

In case of contact:

**Skin** – Immediately wash skin thoroughly with mild soap and water. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes and other articles made of leather.

**Eyes** – Immediately flush eyes with plenty of water for 15 minutes and get prompt medical attention.

**Inhalation** - Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

**Ingestion** - Do not induce vomiting. Dilute with plenty of water and contact physician immediately. Never give anything by mouth to an unconscious person.

### **DISCLAIMER:**

**IMPORTANT:** The following supercedes Buyer's documents. **SELLER / MANUFACTURER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** No statements herein are to be

construed as inducements to infringe any relevant patent. Under no circumstances shall Seller / Manufacturer be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results presented are based on controlled or laboratory work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended

**Specialty Polymers & Services, Inc. (SP&S)**

**28064 Avenue Stanford, Suite F**

**Valencia, CA 91355**

**[www.spolymers.com](http://www.spolymers.com)**

**Tel: 661-294-1790**

**Fax : 661-294-0640**

**info@spolymers.coim**