

## LIQUIDWELD W4720

### 1-Component , Water based Contact Adhesive

LIQUIDWELD™ W4720 is a high performance, water-based adhesive designed as a multipurpose adhesive that bonds fiberboard, paper, cloth, fabric, foam, leather, wood, and many other materials to themselves and to other substrates. It is excellent for bonding High Performance Laminate (HPL) and other decorative overlays to wood, particleboard, MDF, and other core materials. It can be used to make cushions, foam lined containers, store fixtures, millwork, cabinets, work surfaces, decorative panels, and many other items. The dry adhesive bond-line is heat resistant and is suitable for post-forming

LIQUIDWELD™ W4720 can be applied by brush, roller, or sprayer. The standard product color is light blue color and dries to clear blue color. Other colors are available by request.

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

- Excellent adhesive strength
- Solvent Free, HAPS free, and zero VOC
- Tough heat resistant bonds
- Aggressive initial tack

<b>HANDLING PROPERTIES</b>	<b><u>VALUE</u></b>	<b><u>TEST METHOD</u></b>
Visual Appearance	Light Blue	
Base Chemistry	polychloroprene	
Density, lbs./gallon	8.8	ASTM E-201
Specific Gravity	1.05	
Viscosity at 25°C	800 - 1400 cps	ASTM D-2393
Solids Content	44% - 50%	
Coverage per gallon:	340- 360 ft <sup>2</sup> /lbs. at 3.0 dry grams/ft <sup>2</sup>	
Dry time	20 – 30 minutes depending on ambient conditions	
Open time	60 minutes	
Strength Development: Clamp items to be bonded together for at least 2-4 hours at room temperature and <50% relative humidity. Bonds strong enough to produce fiber tears in wood will have developed after 8-12 hours, but the adhesive bond will improve further with additional time. High humidity levels during drying or low permeability materials may slow strength development		

<b>PHYSICAL PROPERTIES</b>	<b><u>VALUE</u></b>	<b><u>TEST METHOD</u></b>
Color (when dry)	Light blue	Visual
Peel Strength	>10 pli	
Lap Shear Strength (plywood, 3/4" thick) at 25°C	>600 psi	ASTM D906
Flexibility – adhesive film on steel plate bent 180 degrees show no cracking or delamination		

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

## **SUGGESTED PROCESSING GUIDELINES:**

Prior to bonding ensure that materials such as laminates, wood, and MDF core materials have equilibrate together for at least 48 hours so that they are at the same temperature and humidity.

Ambient temperatures should be at least 18°C/ 65°F. Best results will result when ambient temperature are 22°C/72°F or greater. Relative humidity of 45% - 55% is ideal, lower ambient humidity can shorten drying time and open time, and higher humidity levels can slow drying time and extend open time.

Apply by brush, dipping or spraying. If spraying, the emulsion can be thinned with small amounts of warm, di-ionized water to produce a lower viscosity. However, the addition of water will reduce the solids content and may increase the dry time. For roller coating applications higher viscosity versions of this product are available by request.

When applying the adhesive to porous surfaces such as plywood and foam, it is advisable to apply 2 coats to achieve optimum bond strength. Apply the first coat and allow it to dry. This initial layer will seal the pores and ensure that the second coat can form a strong bond.

If maximum bond strength is not needed, apply adhesive to both surfaces of porous surfaces and then place the surface firmly together and apply 30-40 psi of firm uniform pressure.

For non-porous surfaces and for maximum bond strength on all surfaces, apply adhesive to both surfaces and allow them to dry. Dry time is typically about 2-30 minutes, but using a fan, drying ovens, and other methods can speed drying. When dry the adhesive layer will be noticeably more transparent (less milky or translucent). You can check for dryness by pressing the back of your fingers firmly against the adhesive layer and then lifting up. If the adhesive feels tacky, transfer to your finger, or pulls up during the test, the adhesive is not dry and ready for bonding.

Once dry, place the surfaces firmly together and use good uniform pressure to ensure the adhesive layers bond together. A pinch roller or 3" J-roller can be used to apply pressure. Recommended pressure is 3-40 psi.

Clean-up: the wet adhesive can be cleaned using ammoniated cleaner before the adhesive film dries. Dried adhesive layers can be removed with suitable solvents. Contact SP&S for recommendations.

## **STORAGE GUIDELINES:**

Store this material in a clean, cool, and dry environment in its tightly closed original container. Do not expose containers to direct sunlight. Product is not freeze-thaw stable, so protect from freezing. If frozen immediately warm to room temperature rather than allowing to remain frozen and contact SP&S for assistance. Tightly reseal containers after use to prevent evaporation and do not store on the floor. If the recommended storage conditions are observed the products will have a minimum shelf-life of 6 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:**

### **LIQUIDWELD W4720**

**WARNING: 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 supersedes 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

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