



CP-0527

MUF Powder Adhesive

DESCRIPTION

CP-0527 is a light tan free flowing melamine-urea resin powder designed as an adhesive for hot-press or high-frequency systems of wood bonding. When used properly it provides a waterproof bond and meets the requirements of ANSI / AITC A190.1-1992 Standard for wood products: Structural Glued Laminated Timber. This resin is well suited for high-frequency, high-strength gluing of truck flooring, rail deck and other laminated wood structures due to fast cure and low arcing. MUF400PC is not meant for use in cold cure applications.

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>TYPICAL VALUES</u>
Appearance	BTM-850-101B	Light Tan free-flowing powder
Particle Size, % (retained on 40 mesh)	BTM-850-102	1.0%, max
Gel Time at 100°C. - sec.*	BTM-850-105A	35 - 80
Viscosity at 25°C. - cps*	BTM-850-104A	800 - 2500
Pot Life at 25°C. - hrs.*	BTM-850-106	2.5 - 5.0

PACKAGE

The standard package for CP-0527 fiber drum having a net content of 50 pounds or 25 pounds.

STORAGE

CP-0527 is sensitive to heat and humidity and should be stored in a closed container in a cool, dry area. Avoid direct contact with concrete floors. Optimum storage conditions are below 75° F. and below 60% relative humidity.

GENERAL BLEND FORMULA OF MUF400PC WOOD ADHESIVE

Equipment - Mechanical Mixer - Medium speed
Pail or mixing vessel to blend in
Scales to weigh water, catalyst, resin

Ingredients and Proportions by Weight -

	<u>Example</u>	<u>at 100 to 65</u>
CP-0527 Resin Powder	100 parts	5 pounds. (80 ounces)
Water	55-65 parts	3.25 pounds (52 ounces)

1. Weigh up the full water charge. Pour about two thirds of the water into the mixing vessel.
2. Start mixer blade and add all the resin charge to the water in the mixing vessel. Mix until the blend is lump free.
3. Add the last one-third of the water charge to the mixing vessel.
4. Thoroughly mix until lump free.



Spectrum Adhesives



How much water added depends on the application. In most lamination processes the water used is 55 - 60 lbs to 100 pound resin. The glue solutions' viscosity and solids give a uniform glue line thickness with proper coverage to avoid glue dry areas on the wood joint. Use of higher amounts of water to thin the glues' viscosity need to be tested by the user for process efficiency. Water temperature is also important to the glue's performance. Lower water temperatures will increase the liquid lifetime of the glue but can cause poor glue penetration into the wood and slow cycle curing time. The best temperatures for glue application are 70 - 78°F. Higher temperatures will shorten the glue liquid lifetime and may cause joint failure due to resin precure.

Wood temperature also affects the glue's performance. Cold wood will slow the cure speed and warm wood will make the cure speed faster. Both conditions can lead to glue joint failure. The best conditions are to have the wood at the same room temperature as the glue solution.

GLUE SPREAD

For hot press veneering

Typically spread at 3.5 pounds per 100 sq ft of glue line (7 mils)

For laminated timber,

especially truck flooring, enough glue should be applied to give a small bead of squeeze out when the panel is put under pressure. An exception to this would be in radio frequency glueing, where heavier spreads might be needed to raise conductivity and to prevent "dry out" problems.

Typically both surfaces of the joint receive a coating of glue. A general rule for the glues' spread thickness is 12 - 14 mils, using a wet film thickness gauge. Excessive glue spreads are wasteful, not very advantageous to the product, and causes addition clean-up problems.

QUALITY TESTING INSTRUCTIONS

For the boiling water gel time, viscosity and pot life determinations, in the lab, blend 300 gm. MUF400PC resin powder with 195 gm. water. When the MUF400PC solution is smooth, adjust the solution temperature to 25°C(78°F), note time. Then check that the temperature is still 25°C (78°F). Start the pot life time. Test the viscosity ten minutes after mixing.