TECHNICAL BULLETIN





AV XL PLUS CROSSLINKING PVA

Description

AV XL Plus is a medium to fast setting medium solids single pack crosslinking PVA emulsion adhesive which develops excellent bond strength, high heat resistance and humidity resistance, without catalyst addition, when dried at normal or elevated temperatures. It produces a clear non staining glue line.

Product Features/Benefits

AV XL Plus is an excellent adhesive for cabinet and furniture assembly where high bond strengths, good water/humidity resistance and relatively short clamp times are required.

Designed for use with RF Curing equipment.

Can be used in cold pressing and hot pressing applications.

A single pack product producing a clear glue line.

Water resistance exceeds DIN 68 602-D3, this means it is suitable for use in exterior conditions, but the glue line must be protected from immersion.

Good creep resistance, exceeding the requirements for Resistance to Sustained Load of BS 4071.

Waterbased and non flammable.

Applications

Edge gluing timber sections
Solid timber veneers or plastic laminates to core substrates
Finger jointing
Panel to frame gluing
RF curing applications

Application Conditions

AV XL Plus is used as supplied.

Ensure surfaces to be bonded are clean, dry and free from oil, dust and any other contamination. Joints should be close fitting. Apply glue to one surface at a coverage rate to ensure wetting out of both surfaces to be joined. Press/clamp while adhesive is still wet.

AV XL Plus has a relatively short assembly time, so pressure needs to be applied to the joint assembly within the 'open' time. This will vary with the density, 'wet-out' characteristic, moisture content of the substrates, and the atmospheric conditions occurring when gluing. Low temperature, damp conditions will extend the clamp time required considerably.

Assembly Conditions

Apply at a coverage rate of 5 - 10m² per litre of glue according to the substrate characteristics and working conditions.

Open Assembly Time 8 - 10 minutes at 20°C

Closed Assembly Time 7 - 12 minutes (depending on timber density) at 20°C

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Clamp Times (Minimum)

Temperatures Low Density Timbers **High Density Timbers**

20°C 90 minutes 180 minutes 30°C 60 minutes 90 minutes

Glue lines should show glue squeeze out on application of pressure.

Where the minimum pressure period is used, "dead" stacking of the freshly bonded panels or timber assemblies for twenty-four (24) hours prior to machining is recommended.

Precautions

Please note some timbers such as Blackwood and Beech may be susceptible to stain development and discoloration from adhesives, which are acidic in nature (low PH) such as AV XL Plus.

Use of adhesives in very cold conditions may result in poor film formation with powdery glue line.

Trials are recommended to confirm suitability.

Clean Up

Wipe excess glue from joints with clean wet cloth before glue has set.

Storage and Handling

Store in unopened sealed plastic containers in warehouse conditions. Do not store directly on concrete. AV XL Plus is acidic in solution so should be used with plastic equipment. Contact with metal containers or equipment, other than stainless steel, in storage or use is not good practice and may cause staining problems in the glue line.

Storage Life

Typically nine (9) months at 25°C, in the original, sealed plastic container.

RF Curing Application

AV XL Plus is suitable for use with RF Curing equipment. Trials should be conducted with the timber species and sections to be used in production to optimise curing conditions.

Hot Pressing

AV XL Plus can be used in hot pressing applications, in panel and general assembly gluing. Temperatures and Press Time conditions will vary for the particular application, substrate conditions, etc. We would be pleased to assist with 'laboratory' trials to provide a basis for 'production' facility trials.

Material Safety Data Sheet available on request.

Disclaimer - The statements made herein are based on our experience gained to date. They are to be considered as information without obligation. Please test and establish for yourself our product's suitability for your particular purposes. No liability exceeding the value of our product can be derived from the foregoing statements. This also applies to the technical advisory service, which is rendered free of charge and without obligation.

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