



Product Information Sheet

CP-1500

Casein Adhesive

Description

CP-1500 is a light colored, dry powder protein adhesive intended for no-clamp, cold-press gluing of flush doors. This adhesive complies with requirements for interior grade bond of Commercial Standard CS-171-58, Type II, Paragraph 3.3.1. This adhesive will meet the requirements of NWWDA I.S. 1.6-87 Type II and Type I specifications for flush doors.

This adhesive has Warnock Hersey 45, 60, and 901 Fire Door approval, December 4, 1985, File No. 490-0045-

B34 for use with Weyerhaeuser®, Timberland® system. Also, Georgia-Pacific® approval for 45, 60, and 90 minute Fire-door Manufacturing Specifications, June 14, 1990, File No. WHI-495-PSV-0836.

Mixing Directions: (See last page for posting mix sheet.)



| Item | Amount | parts ratio for non standard mix |
|---|----------------|----------------------------------|
| 1. Water at 50-60-f | 90 lbs | 100 |
| 2. Start the mixer | | |
| 3. CP-1500 50 lbs | 50 lbs | 56 |
| 4. Mix for 5 minutes | | |
| 5. Water | 35 lbs | 39 |
| 6. Mix 15 minutes | | |
| 7. (Optional) Ideally let mix sit 10 – 15 minutes | | |
| 8. Mix again for 3-5 minutes | | |
| Total | 175 lbs | 195 parts |

Notes

1. Some adjustment may be necessary for individual mixers on amounts of water in steps 1 and 3. In adjusting, keep total weight of water at 240-260# per 100 pound bag. If lumping occurs, correct as follows: If the lumps have wet centers, move some water from step 3 to step 1. If the lumps have dry centers, move some water from step 1 to step 3.
2. Wood stock temperatures must be above 60f
3. Working life of CP-1500 is about 4 hours at 70°F. Use of mixed glue older than 6 hours is not recommended. Storage life is 12 months @ 32°F - 90°F

Preparation of Stock

Stock for door assembly must be smoothly cut and of uniform thickness. Thick and thin material is probably the greatest cause of loose corners and poor bonds in any door assembly operation. obvious defects, such as pitch pockets, large or loose knots, etc., will detract from the quality of the bond. The moisture content of the stock should be 8 to 12 percent.

Glue Spread

Glue is to be applied to both sides of the core in a double roll spreader. Roll groovings, recommended are



WCAMA #2 for steel rolls, and WCAMA #14 or Black Brothers A2205 for rubber rolls. Spread is expressed in pounds of liquid glue per 1,000 square feet of single glue line. For double spread testing, a pre-weighed piece of core stock is spread on both sides.

The amount of glue to be applied will vary according to the density of the wood being glued, the moisture content of the wood, the assembly time, and the accuracy of the surfaces to be joined. In all cases, however, sufficient glue should be applied, which is evidenced by a perceptible bead of "squeeze-out" around the edge of the glue line. Recommended spreads are as follows:

| Description | Single | Double |
|---|--------|---------|
| Pounds of mixed glue per 1,000 square feet of glue line | 50-65 | 110-130 |
| For 90-minute fire doors | 70-85 | 140-170 |

Pressing

* Pressure: Hollow core doors. 100 psi based on actual spread surface area.

Time : 15 minutes at temperatures of 60°F and over.

Do not glue when wood temperature is below 60°F.

After pressing, store undisturbed stack under cauls. To insure even pressure distribution, the following use of caul boards is recommended:

1. Heavy cauls at top and bottom of each load
2. Lighter additional caul inserted between doors at each two feet of height in the load.

*For example: A 2'6" x 6'8" door has a hollow core of 800 square inch spread surface area.

Total door area = 2'6" x 6'8" = 30" x 80"
= 2400 square inches

Pressure required on the full door area to get 100 psi on the spread surface area is:

$(100)(800) = 33 \text{ psi over the whole door}$
 (2400)

Closed Assembly Time: 60°F to 80°F stock temperature and a glue spread of 60 lbs/1,000 square feet of single glue line: 30 minutes maximum; 3 minutes minimum

Machining

Dead stack for a minimum of 4 hours prior to machining, although longer storage is preferable.

Moisture Content of Stock

The above suggestions are based on stock of about 8 to 10% moisture content. For dry stock (less than 6% M. C.), caution is necessary to shorten the assembly time to prevent drying out. For wet stock (more than 10% M.C.), it may be necessary to lengthen the assembly time and to lengthen the pressing time to assure a firmly set glue line. Do not use stock with more than 12% M.C.

Storage:

Packaged CP-1500 should be stored in a dry area between 60 – 85F. Under these conditions the casein has a storage life of 1-year. Avoid storing CP-1500 above 100F and below 40F. If the package is damaged or opened, re-seal as tightly as possible until use. High humidity and bug growth can result in quality issues with the casein after 1-month of being opened and not properly sealed.

Safety and Environment: This product has to be used and disposed of according to the indications given in its safety data sheet. Spectrum, solid products, including but not limited to powders and flake resin products, can be combustible and present a fire or explosion hazard under certain conditions (including, but not limited to when dusts are finely divided and suspended in air and/or allowed to accumulate on surfaces). Fine dust clouds may form explosive mixtures. The buyer must comply with all laws, regulations and standards applicable to the possession, handling and use of solid products by the buyer. Please consult US NFPA Standard 654, UK HSE Guidance HSG 103, or other national guidance on safe handling of combustible dusts.