For more than 35 years, The Franklin Glue Company has built its reputation for adhesives on research, development, and efficient production of quality adhesives designed for a wide variety of applications. Its Structural Adhesive Division, organized to help the construction industry build better buildings, lists products serving manufacturers of pre-fabricated building elements, factory-built housing, contractors working on the job site, even the do-it-yourself operator adding to the usefulness of his own home.

A relatively recent addition to Franklin's line of structural adhesives is a remarkably versatile product. The firm developed this Construction Adhesive for production line or job site, for exterior or interior use, for bonding plywood panels to floor joists, roof rafters, or wall studs, for a sealant around door and window frames, even for bonding plates to poured concrete surfaces.

Franklin cites as an example the use of its FHA-accepted Construction Adhesive in laying plywood subflooring. Here, a bead from 1/4 to 3/8 inch thick is laid down on all floor joists, a sheet of plywood is positioned, then nailed down. The resulting floor shows the following advantages, according to the firm.

- Irregularities in joists leave gaps filled by the "Franklin" Construction Adhesive. This gives an overall strength unattained by thin brush-on formulations.
- Nail spacing can be at 12-inch intervals — savings in nails and time result.
- Adequate working time — normally 30 to 45 minutes before a bead sets.
- Aging characteristics of the Construction Adhesive provide years of service — life of the material exceeds 500 hours in the Oxygen Bomb Chamber test. Resulting long-lived, tight joints eliminate squeaking floors.
- Bridging may be eliminated.
- The Construction Adhesive is easily applied even to frozen lumber. However, ice, mud, and other foreign materials must be removed from the surface.

Joint spans and spacing may be increased beyond those permissible with nails alone as the fastening agent. Use of the Construction Adhesive allows increases of maximum span (based on stiffness) varying from 8 to 23 inches depending on joist spacing and size, plywood thickness, and joist elastic modulus. Joist bending stresses at maximum span are increased from 10 to 40 per cent depending on the same variables. Franklin, of course, cautions that local building codes may forbid using the greater joint spacing and spans possible with its Construction Adhesive even though the system has been thoroughly engineered by the American Plywood Association and accepted by HUD/FHA as well as by leading code agencies.

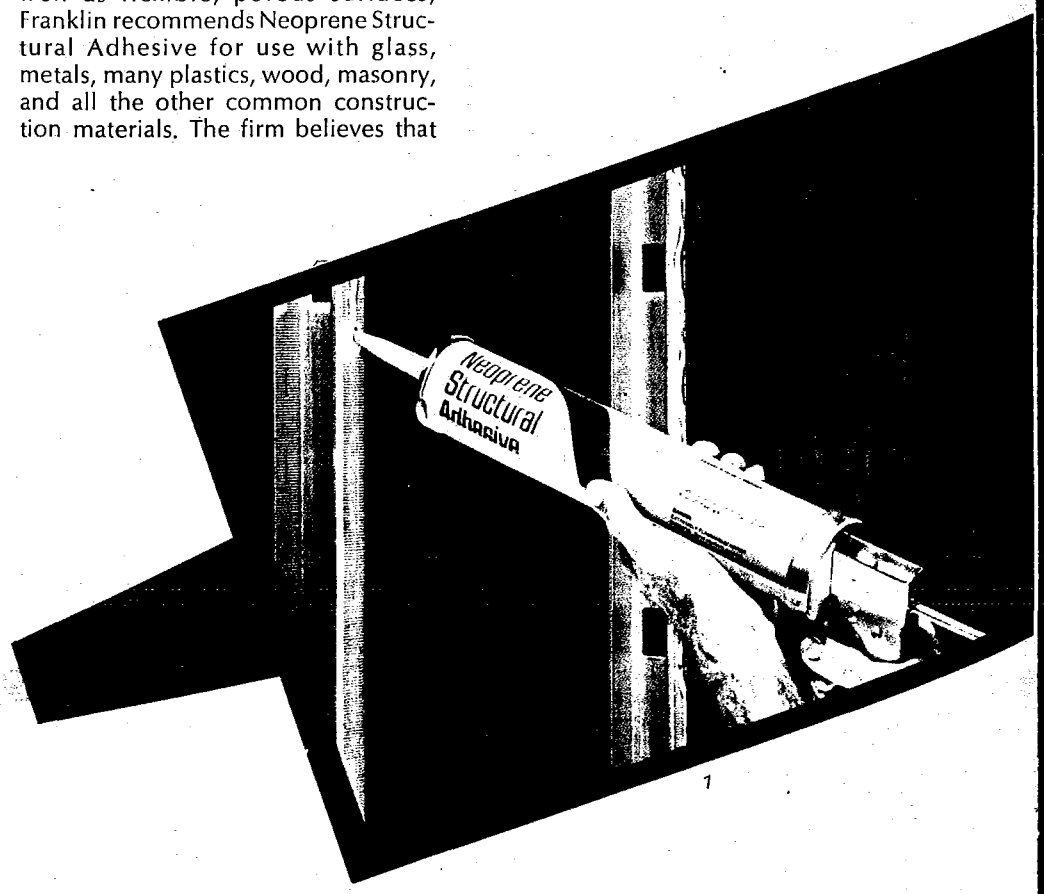
The Construction Adhesive, Franklin reports, has given satisfactory results when bonding wood to steel floor joists, gypsum wallboard to metal studs, urethane foam to many different surfaces. However, increasing interest in use of steel joists and studding led the firm to its latest product for the building trades — Neoprene Structural Adhesive. Developed to create a strong, long-life bond between rigid, nonporous surfaces as well as flexible, porous surfaces, Franklin recommends Neoprene Structural Adhesive for use with glass, metals, many plastics, wood, masonry, and all the other common construction materials. The firm believes that its new product is unique in developing extremely high strength, outstanding creep resistance, and excellent high temperature resistance in a relatively short time. For example, typical strengths developed in 1½-inch by 1½-inch wood to wood bonds were shown in a cross-lap direct pull test to be:

620 pounds after 16 hours drying at room temperature.

590 pounds after four days drying at room temperature.

1,100 pounds after ten days drying at room temperature.

With these two unusual adhesives and its complete line of glues, contact cements, caulks, and sealants, Franklin believes it is indeed able to help construction men build with adhesives. BAKELITE resins and Chemicals from Union Carbide afford Franklin a diverse variety of raw materials for formulation into structural adhesives.



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