



Hardboard Siding Makes the Grade!



Today's hardboard siding products are well known for their pleasing aesthetics arising from the natural beauty and warmth of wood. Add their durable performance and ease of maintenance to their curbside appeal, and you have a winning combination that exceeds the expectations of builders and homeowners alike.

Siding is available with a variety of factory-primed or factory-finished coatings, in addition to a variety of sizes and surface textures. Surface treatments include sophisticated woodgrains and embossed surfaces. These products are ideally suited for exterior installation on commercial or residential wood framed structures. In addition, a growing number of these products are certified for their recycled wood fiber content, which increases their attractiveness to today's environmentally conscious "sustainable" building community.

SIDING PRODUCTS CAN BE CLASSIFIED INTO THREE BASIC TYPES:

LAP SIDING – boards applied horizontally with each board overlapping the board below it or with horizontal shiplap joints

PANEL SIDING (Square Edge Panels) – intended for vertical applications in full sheets

SHIPLAP EDGE PANEL SIDING – intended for vertical applications with the long edges incorporating shiplap joints

Like other exterior siding products, hardboard siding must carry the certification mark of a third-party agency which verifies that the product meets certain performance requirements. This mark also identifies the manufacturing plant and the standard to which the product conforms. The Composite Panel Association (CPA) offers North America's largest and most strin-

gent independent third-party certification program for hardboard siding. CPA's certification program is accredited by the International Evaluation Services of the International Code Council (ICC).

In the United States, the ICC's International Building Code/International Residential Building Code and the Department of Housing and Urban Development's Manufactured Home Construction and Safety Standards recognize the American National Standard, ANSI A135.6 – Hardboard Siding. In Canada, the National Building Code of Canada and National Housing Code reference the Canadian General Standards Board's CAN/CGSB 11.5-M87, Hardboard, Precoated, Factory Finished, for Exterior Cladding, 1987 and CAN/CGSB 11.3-M87, Hardboard, 1987.

The ANSI and CGSB product standards cover the requirements and methods of testing for the dimensions, straightness, squareness, physical properties, surface characteristics, trade terms and methods of identifying hardboard siding. The dimensional and physical properties are determined in accordance with American Society for Testing and Materials ASTM D 1037, Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials. Physical properties measured include water absorption, thickness swell, linear expansion, nail-head pull-through, lateral nail resistance, modulus of rupture, surface hardness, impact resistance and moisture content.

In addition to dimensional and physical property tests, the standards also specify requirements for weatherability determined by rigorous tests known as "accelerated aging." The two required accelerated aging tests for hardboard siding are performed to predict a product's long-term performance when exposed to many years of sunlight (UV radiation), rain (excessive moisture) and severe temperature changes.

The first test, called “Weatherability of Substrate,” prescribes six consecutive cycles of wetting, drying and freezing of the siding product. After the six cycles, the product’s permanent residual thickness swell is measured in thousandths of an inch by a micrometer, and the percentage of permanent thickness swell from its original thickness is calculated and compared to the standard’s requirement.

The second accelerated aging method is called “Weatherability of Primed Substrate.” This procedure exposes smaller siding samples to repeated cycles of intense light, water spray and drying for a period of three weeks. Following this three-week exposure period, the adhesion of the sample’s primed finish is evaluated. The primed finish is also evaluated on how well it accepts and bonds to topcoat formulations with a tape pull procedure.

The service life of hardboard siding depends on many factors, including proper installation and paint application, local climate and solar exposure.

Fortunately, the surface of hardboard siding is ideal for field applied coatings, since hardboard does not have any knots, raised grain or other defects that typically shorten a coating’s life. Using a high-quality exterior paint recommended for use on hardboard siding can maximize the longevity of siding. Exterior walls exposed to severe sun and moisture generally need refinishing sooner – perhaps as often as every three years and preferably before severe weathering has started.

Purchasing CPA certified hardboard siding, and following the manufacturer’s installation and maintenance guidelines, ensures maximum performance and satisfaction from this engineered product made from a naturally renewable and environmentally friendly resource – wood!

For additional information, contact the CPA for the following publications: Basic Application and Painting Instructions for Hardboard Siding and Maintenance Tips for Hardboard Siding. **2W**