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Standard Terminology Relating to Wood-Base Fiber and Particle Panel Materials¹

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INTRODUCTION

The terms included in this terminology are intended to apply to a family of lignocellulosic panel materials specially manufactured for use industrially as components (core, facing, or panels) of furniture, cabinets, and the like, and in building construction as siding, sheathing, partitions, door cores and paneling, acoustical treatments, and as structural components there and elsewhere where the combination of thickness, panel size, and properties satisfy a particular need. The usual alternative materials to these wood-base panel materials are wood in the form of lumber and plywood, plastics, inorganic fiber cement boards, and gypsum board.

The terms used and defined herein differ slightly from some practice. Modifications appeared to be desirable to clarify the nomenclature since confusion exists because of the similarity of some existing terms with those for other materials. The use of the terms herein will do much to standardize the terms pertaining to cellulosic fiberboard, hardboard, and particleboard, the principal materials included. The board or panel materials included are those derived from wood and the woody tissue of such plants as bagasse, flax, and straw. They fall into two general groups: (1) those manufactured from lignocellulosic fibers and fiber bundles where in manufacture the interfelting of the fibers and a natural bond are characteristics, and (2) those boards manufactured from a wide range in size and shape of particles ranging from fine elements approaching fibers in size to large flakes which are blended with synthetic resin adhesive and consolidated into boards characterized by the resin bond and usually known as resin-bonded particleboards or more commonly as particleboards.

1. Terminology

GENERAL DEFINITIONS

fibrous-felted boards—a felted wood-base panel material manufactured of refined or partly refined lignocellulosic fibers characterized by an integral bond produced by an interfelting of fibers and in the case of certain densities and control of conditions of manufacture by ligneous bond, and to which other materials may have been added during manufacture to improve certain properties.

medium-density fiberboard (MDF)—a composite panel product composed primarily of cellulosic fibers in which the primary source of physical integrity is provided through addition of a bonding system cured under heat and pressure. Additives may be introduced during the manufacturing process to improve certain properties. MDF density at the time of manufacturing, is typically between 500 kg/m³(31

lb/ft³) and 1000 kg/m³(62 lb/ft³), based on a reported moisture content at the time of weight and volume measurements.

particleboards—a generic term for a composite panel primarily composed of cellulosic materials, generally in the form of discrete pieces or particles, as distinguished from fibers, bonded together with a bonding system, and that may contain additives.

wood-base fiber and particle panel materials—a generic term applied to a group of board materials manufactured from wood or other lignocellulosic fibers or particles to which binding agents and other materials may be added during manufacture to obtain or improve certain properties. Composed of two broad types, fibrous-felted and particleboards.

wood-cement board—a panel material where wood usually in the form of excelsior is bonded with inorganic cement.

CLASSIFICATION OF FIBROUS-FELTED BOARDS

cellulosic fiberboard—a generic term for a homogeneous panel made from lignocellulosic fibers (usually wood or cane) characterized by an integral bond produced by interfelting of the fibers, to which other materials may have been

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