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Standard Guide to Wood Underlayment Products Available for Use Under Resilient Flooring[1]

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1. Scope

1.1 This guide outlines the types of wood underlayment products commonly available for use under resilient flooring.

1.2 This guide points out the subfloor factors that shall be controlled in preparing underlayment as a base for resilient flooring.

1.3 This guide does not cover the structural adequacy of the subfloor or combination subfloor-underlayment which is governed by applicable regulatory agencies, nor does it apply to wood underlayment over concrete floors.

1.4 This guide does not supersede, in any manner, the underlayment manufacturer's or the resilient flooring manufacturer's instructions. Not all underlayment products are approved by all resilient flooring manufacturers.

1.5 This guide does not attempt to cover details of underlayment installation. Follow the detailed instructions of the flooring or underlayment manufacturers or both. Where conflicting instructions exist, consult the manufacturer's warranty coverage.

2. Referenced Documents

2.1 *ANSI Standards:*

ANSI/A208.1-1993, Particleboard[2]

ANSI/AHA A135.4-1988 Basic Hardboard[3]

2.2 *Other Standards:*

HPMA Standard HP-1 (1992), Interim Voluntary Standard for Hardwood and Decorative Plywood[4]

U.S. Product Standard PS 1-83, Construction and Industrial Plywood[4]

APA Design/Construction Guide: Residential and Commercial, Form E30[4]

U.S. Product Standard PS 2-92, Performance Standard for Wood-Based Structural-Use Panels[4]

Installation and Preparation of Plywood Underlayment for Resilient Flooring, Form L335[4]

Particleboard —The Ideal Floor Underlayment[2]

3. Terminology

3.1 *Definitions:*

3.1.1 *resilient flooring*—resilient material in tile or sheet form that is used to cover the underlayment referred to in this guide.

3.1.2 *subfloor*—that structural layer intended to provide support for loadings which may receive resilient floor coverings directly, if the surface is appropriate, or indirectly by way of an underlayment if its surface is not suitable.

3.1.3 *subfloor underlayment*—a structural floor system in which the upper surface is suitable to receive resilient floor coverings.

3.1.4 *underlayment*—that layer of material usually installed on or over a subfloor that provides a surface suitable to receive resilient floor covering.

4. Significance and Use

4.1 Resilient tile and sheet floor coverings are installed over various surfaces. This guide provides general information on the types of wood underlayment panels available for use beneath resilient flooring.

5. Materials and Descriptions

5.1 Plywood is composed of veneer layers, which are glued together with adhesive. The grain orientation of the veneers alternate so that the face veneers have the grain running in the long direction of the panel and the core veneers alternating in the grain direction. Underlayment grades of softwood plywood have a special inner-ply construction to resist indentation and puncture from concentrated loads.

5.2 Oriented Strand Board (OSB) is made of thin narrow strands of hardwoods and softwoods which are longer than they are wide. These strands are dried, screened, blended with adhesive, and formed into a multilayered mat. In the surface layers, the long direction of the strand is oriented so that it is parallel to the long direction of the panel. The strands in the core are perpendicular to the surface strands.

5.3 Waferboard is made from thin wafers of wood which are usually equal in width and length. The wood wafers are dried, screened, and blended with adhesive.

5.4 Particleboard is manufactured from lignocellulosic materials (usually wood) primarily in the form of discrete pieces

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[2] National Particleboard Assoc., 18928 Premiere Court, Gaithersburg, MD 20879.

[3] American National Standards Institute, 11 West 42nd St., 13th floor, New York, NY 10036.

[4] American Plywood Assoc., P.O. Box 1700, Tacoma, WA 98411-0700.