CENTURA
ENGINEERED HARDWOOD FLOORING

Adhesive System Requirement

Engineered Hardwood Flooring – Technical Specification

Manufacturer Installation Standard

This specification applies to all engineered hardwood flooring products manufactured with face species including:

- White Oak
- North American Oak
- Maple
- Hickory

1. Performance Requirement

Due to the density and mechanical properties of hardwood species, the adhesive system must provide:

- Structural-grade shear strength
- Long-term bond durability
- Elastic stress accommodation
- Zero volumetric shrinkage during cure
- Compatibility with concrete and wood substrates

Seasonal humidity fluctuations typical in North America result in dimensional movement of hardwood flooring. The adhesive layer must absorb cyclic expansion and contraction without bond degradation.

2. Required Adhesive Chemistry

Approved adhesive systems must meet all of the following criteria:

- Single-component moisture-cured polyurethane (PU)
- 100% solids formulation (solvent-free, non-water-based)
- Reactive isocyanate-terminated prepolymer technology
- High cross-link density after cure
- Suitable for full-spread glue-down installation

Adhesive systems not meeting the above chemical and performance criteria are not approved for installation of this product.

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3. Engineering Justification

Moisture-cured polyurethane systems provide:

- High shear bond strength required for dense hardwood species
- Controlled elasticity to accommodate seasonal movement
- No shrinkage during cure, reducing hollow spots and bond gaps
- Stable curing mechanism under variable job-site humidity

This adhesive chemistry offers the optimal balance of structural strength and flexibility required for engineered hardwood flooring installations.

4. Approved Product Example

Adhesive systems meeting the above criteria include:

-Ultrabond ECO 980 (Moisture-Cured Polyurethane, 100% Solids)

Equivalent single-component moisture-cured polyurethane systems with comparable performance characteristics may be considered subject to manufacturer approval.

-Ultrabond ECO 995

Moisture-cured polyurethane; high shear strength with enhanced moisture control capability; suitable for dense hardwood species and challenging slab conditions.

-Titebond 801 Urethane Wood Flooring Adhesive

Single-component moisture-cured polyurethane; high structural bond performance designed for solid and engineered hardwood installations.

5. Warranty Condition

Warranty coverage for bond performance is conditional upon:

- Use of an approved moisture-cured polyurethane adhesive system
- Compliance with substrate moisture testing requirements
- Full-spread installation per adhesive manufacturer guidelines

Failure to use an approved PU adhesive system may result in bond failure, delamination, plank displacement, or stress-related deformation and will void applicable warranty coverage.