Titebond® II Dark Wood Glue

Physical Properties (Typical)

Type Cross-linking polyvinyl acetate
State Liquid
Color Light brown
Dried film Brown
Solids 48%
Viscosity 4,000 cps
pH 3.0

Calculated VOC: 5.5 g/L
Weight/gallon 9.1 lbs.
Chalk temperature* Approx. 55°F.
Flashpoint >200°F.
Freeze/thaw stability Stable
Storage life 12 months in tightly closed containers at 75°F.

*Chalk temperature indicates the lowest recommended temperature at which the glue, air and materials can be during application, to assure a good bond.

Application Guidelines

Application temperature Above 55°F.
Open assembly time 5 minutes (70°F./50%RH)
Total assembly time 10-15 minutes (70°F./50%RH)
Minimum required spread Approximately 6 mils or 250 square feet per gallon
Required clamping pressure Enough to bring joints tightly together (generally, 100-150 psi for softwoods, 125-175 psi for medium woods and 175-250 psi for hardwoods)
Methods of application Plastic bottles for fine applications; glue may also be spread with a roller spreader or brush.
Cleanup Damp cloth while glue is wet. Scrape off and sand dried excess.

Bond Strength ASTM D-905 (on hard maple)

Temperature	Strength psi	% wood failure
Room Temperature	3,750	72
150°F. Overnight	1,750	6

Product Features

- **Passes ANSI Type II water-resistance**
- **Designed for interior and exterior applications**
- **Excellent sandability**
- **Unaffected by finishes**
- **Ideal for radio frequency (R-F) gluing systems**
- **Easy cleanup with water**

Limitations

Titebond II Dark Wood Glue is not for continuous submersion or for use below the waterline. Not for structural or load bearing applications. Do not use when temperature, glue or materials are below 55°F. Freezing may not affect the function of the product but may cause it to thicken. Agitation should restore product to original form. Because of variances in the surfaces of treated lumber, it is a good idea to test for adhesion. Not FDA approved for indirect food contact. Read MSDS before use. KEEP FROM FREEZING. **KEEP OUT OF THE REACH OF CHILDREN.**

TITEBOND® LIQUID HIDE GLUE

PHYSICAL PROPERTIES (TYPICAL)

Type Natural protein emulsion
State Liquid
Color Amber
Dried film Translucent
Solids 52%
Viscosity 4,000 cps
pH 6.5

Calculated VOC: 0 g/L
Weight/gallon 9.6 lbs.
Flashpoint >200°F.
Freeze/thaw stability Stable
Storage life 12 months in tightly closed containers at 75°F.

APPLICATION GUIDELINES

Application temperature Above 50°F.
Open assembly time 10 minutes (70°F./50% RH)
Total assembly time 20-30 minutes (70°F./50% RH)
Minimum required spread Approximately 6 mils or 250 square feet per gallon
Required clamping pressure Enough to bring joints tightly together (generally, 100-150 psi for softwoods, 125-175 psi for medium woods and 175-250 psi for hardwoods)
Methods of application Can be applied by roller or dip spreader, pressurized oil cans, plastic applicators, brush or stick.
Cleanup Damp cloth while glue is wet. Scrape off and sand dried excess.

BOND STRENGTH ASTM D-905 (ON HARD MAPLE)

Temperature	Strength psi	% wood failure
Room Temperature	3,591	72
150°F. Overnight	3,207	59

PRODUCT FEATURES

- **Ready-to-use form**
- **Ideal for fine furniture repair**
- **Excellent sandability**
- **Unaffected by finishes**
- **Excellent creep-resistance**
- **Can be used to create a "crackling effect" on wood**
- **Slow set allows precise assembly**

LIMITATIONS

Titebond Liquid Hide Glue is not intended for exterior use or where moisture is likely. Not for structural or load bearing applications. For exterior applications use Titebond III Ultimate Wood Glue or Titebond II Premium Wood Glue. Freezing may not affect the function of the product but may cause it to thicken. Agitation should restore product to original form. KEEP FROM FREEZING.

CAUTION STATEMENT

CAUTION: EYE IRRITANT. Contains ammonium rhodanate; dicyanodiamide. Contact with eye will cause irritation. Do not take internally. Not intended for use by children. If eye contact occurs, rinse with running water for at least 15 minutes. If ingested do not induce vomiting. Seek medical attention if eye irritation or gastric distress occurs. For additional information, refer to Material Safety Data Sheet. **KEEP OUT OF THE REACH OF CHILDREN.**

Titebond®
Original Wood Glue

Physical Properties (Typical)

Type Aliphatic resin emulsion
State Liquid
Color Yellow
Dried film Translucent
Solids 46%
Viscosity 3,200 cps
pH 4.6

Calculated VOC: 10.7 g/L
Weight/gallon 9.2 lbs.
Chalk temperature* Approx. 50°F.
Flashpoint >200°F.
Freeze/thaw stability Stable
Storage life 12 months in tightly closed containers at 75°F.

*Chalk temperature indicates the lowest recommended temperature at which the glue, air and materials can be during application, to assure a good bond.

Application Guidelines

Application temperature Above 50°F.
Open assembly time 5 minutes (70°F./50%RH)
Closed assembly time 10-15 minutes (70°F./50%RH)
Minimum required spread Approximately 6 mils or 250 square feet per gallon
Required clamping pressure Enough to bring joints tightly together (generally, 100-150 psi for softwoods, 125-175 psi for medium woods and 175-250 psi for hardwoods)
Methods of application Plastic bottles for fine applications; glue may also be spread with a roller spreader or brush.
Cleanup Damp cloth while glue is wet. Scrape off and sand dried excess.

Bond Strength ASTM D-905 (on hard maple)

Temperature	Strength psi	% wood failure
Room Temperature	3,600	77
150°F. Overnight	1,600	10

Product Features

- **Fast set – shortens clamp time**
- **Bonds stronger than wood**
- **Excellent heat and solvent-resistance**
- **Excellent sandability**
- **Unaffected by finishes**
- **Versatile – bonds wood, hardboard, high pressure laminates and particleboard**
- **Easy cleanup with water**

Limitations

Titebond Original Wood Glue is not intended for exterior use or where moisture is likely. For exterior applications use Titebond III Ultimate Wood Glue or Titebond II Premium Wood Glue. Not for structural or load bearing applications. Do not use when temperature, glue or materials are below 50°F. Freezing may not affect the function of the product but may cause it to thicken. Agitation should restore product to original form. Read MSDS before use. KEEP FROM FREEZING. **KEEP OUT OF THE REACH OF CHILDREN.**

Ordering

TITEBOND® POLYURETHANE GLUE

PHYSICAL PROPERTIES (TYPICAL)

Type Polyurethane
State Liquid
Color Brown
Dried film Yellow
Solids 100%
Viscosity 8,500 cps

Calculated VOC: 0 g/L
Weight/gallon 9.55 lbs.
Flashpoint >200°F.
Freeze/thaw stability Stable
Storage life 12 months in tightly closed containers at 75°F.

APPLICATION GUIDELINES

Application temperature Above 50°F.
Assembly time after glue application 20-25 minutes (70°F./50%RH)
Minimum required spread Approximately 6 mils or 250 square feet per gallon
Required clamping pressure Enough to bring joints tightly together (generally, 30-80 psi for HPL, 100-150 psi for softwoods, 125-175 psi for medium woods and 175-250 psi for hardwoods).
Methods of application Easily spread with a roller, spreader or brush.
Cleanup Mineral spirits while glue is wet. Scrape or sand off dried excess.

BOND STRENGTH ASTM D-905 (ON HARD MAPLE)

Temperature	Strength psi	% wood failure
Room Temperature	3,500+	60
150°F. Overnight	3,000+	50

PRODUCT FEATURES

- **100% waterproof (Passes ANSI Type I & II water-resistance testing)**
- **Bonds virtually everything**
- **Epoxy-like strength – no mixing**
- **Long open time**
- **Excellent sandability**
- **100% solids**
- **Solvent free**

LIMITATIONS

Titebond Polyurethane Glue is not for structural applications below the waterline. For ease of application, the glue, temperature and materials to be bonded should be above 50°F. Lower temperatures will cause the glue to thicken.

CAUTION STATEMENT

WARNING: EYE AND SKIN IRRITANT. POTENTIAL SKIN AND RESPIRATORY SENSITIZER. Contains isocyanate containing polymers. Contact causes eye irritation. Prolonged or repeated skin exposure may cause irritation and sensitization or allergic reaction. Contact may stain skin. Do not allow eye contact. Avoid prolonged or repeated contact with skin. In case of eye contact, flush immediately with plenty of water for at least 15 minutes and seek medical attention. For skin, wash thoroughly with soap and water. For additional information, refer to Material Safety Data Sheet. **KEEP OUT OF THE REACH OF CHILDREN.**

Titebond® II Premium Wood Glue

Physical Properties (Typical)

Type Cross-linking polyvinyl acetate
State Liquid
Color Honey cream
Dried film Translucent, yellow
Solids 48%
Viscosity 4,000 cps
pH 3.0

Calculated VOC: 5.5 g/L
Weight/gallon 9.1 lbs.
Chalk temperature* Approx. 55°F.
Flashpoint >200°F.
Freeze/thaw stability Stable
Storage life 12 months in tightly closed containers at 75°F.

*Chalk temperature indicates the lowest recommended temperature at which the glue, air and materials can be during application, to assure a good bond.

Application Guidelines

Application temperature Above 55°F.
Open assembly time 5 minutes (70°F./50%RH)
Total assembly time 10-15 minutes (70°F./50%RH)
Minimum required spread Approximately 6 mils or 250 square feet per gallon
Required clamping pressure Enough to bring joints tightly together (generally, 100-150 psi for softwoods, 125-175 psi for medium woods and 175-250 psi for hardwoods)
Methods of application Plastic bottles for fine applications; glue may also be spread with a roller spreader or brush.
Cleanup Damp cloth while glue is wet. Scrape off and sand dried excess.

Bond Strength ASTM D-905 (on hard maple)

Temperature	Strength psi	% wood failure
Room Temperature	3,750	72
150°F. Overnight	1,750	6

Product Features

- **First one-part wood glue to pass ANSI Type II water-resistance**
- **Designed for exterior use**
- **Excellent sandability**
- **Unaffected by finishes**
- **FDA approved for indirect food contact**
- **Ideal for radio frequency (R-F) gluing systems**
- **Easy cleanup with water**

Limitations

Titebond II Premium Wood Glue is not for continuous submersion or for use below the waterline. Not for structural or load bearing applications. Do not use when temperature, glue or materials are below 55°F. Freezing may not affect the function of the product but may cause it to thicken. Agitation should restore product to original form. Because of variances in the surfaces of treated lumber, it is a good idea to test for adhesion. Read MSDS before use. KEEP FROM FREEZING. **KEEP OUT OF THE REACH OF CHILDREN.**

Ordering

Titebond® III Ultimate Wood Glue

Physical Properties (Typical)

Type Advanced Proprietary Polymer
State Liquid
Color Tan
Dried film Light Brown
Solids 52%
Viscosity 4,200 cps
pH 2.5

Calculated VOC: 5.6 g/L
Weight/gallon 9.22 lbs.
Chalk temperature* Approx. 47°F.
Flashpoint >200°F.
Freeze/thaw stability Stable
Storage life 12 months in tightly closed containers at 75°F.

*Chalk temperature indicates the lowest recommended temperature at which the glue, air and materials can be during application, to assure a good bond.

Application Guidelines

Application temperature Above 47°F.
Open assembly time 10 minutes (70°F./50%RH)
Total assembly time 20-25 minutes (70°F./50%RH)
Minimum required spread Approximately 6 mils or 250 square feet per gallon
Required clamping pressure Enough to bring joints tightly together (generally, 100-150 psi for softwoods, 125-175 psi for medium woods and 175-250 psi for hardwoods)
Methods of application Plastic bottles for fine applications; glue may also be spread with a roller spreader or brush.
Cleanup Damp cloth while glue is wet. Scrape off and sand dried excess.

Bond Strength ASTM D-905 (on hard maple)

Temperature	Strength psi	% wood failure
Room Temperature	4,000	57

Product Features

- **Passes ANSI/HPVA Type I water-resistance**
- **Waterproof formula that cleans up with water**
- **Superior strength – strong initial tack**
- **Designed for interior and exterior applications**
- **Longer open assembly time**
- **Lower application temperature**
- **Unaffected by finishes**
- **FDA approved for indirect food contact**

Limitations

Titebond III Ultimate Wood Glue is not for continuous submersion or for use below the waterline. Not for structural or load bearing applications. Do not use when temperature, glue and materials are below 47°F. Store product below 75°F. Storage above this temperature may cause product to thicken and reduce the usable shelf life. If thickened, shake vigorously by firmly tapping bottle on a hard surface until product is restored to original form. Because of variances in the surfaces of treated lumber, it is a good idea to test for adhesion. Read MSDS before use. KEEP FROM FREEZING. **KEEP OUT OF THE REACH OF CHILDREN.**