

## Adhesives used in Nordic Products

This technical note provides information on the adhesives used in Nordic Lam+ and Nordic X-Lam products.

### Nordic Lam+

Nordic Lam+ structural glued laminated timber (glulam) is made from Spruce-Pine-Fir species (mainly Black Spruce), and is certified to the ANSI A190.1 Standard. The surfaces are bonded with an emulsion polymer isocyanate (EPI) adhesive, a two-part urethane hybrid adhesive (PU), or a one-component polyurethane (PUR) adhesive used with a primer. The finger joints are bonded with a polyurethane emulsion polymer (PEP) adhesive. These formaldehyde-free adhesives do not pose a health hazard and the quantities of glues are in a very low proportion of about 3% (mass-based).

#### Adhesives used:

- Face bonding, hot presses: Ashland Isoset WD3-A322/CX-47 (EPI) or Henkel Loctite/Purbond GT20/GT205 (PU)
- Face bonding, cold presses: Ashland Isoset WD3-A322/CX-47 (EPI) or Henkel Loctite/Purbond HB-X (PUR) with PR 3105 Primer
- Finger-jointing: Ashland Isoset UX-100/WD3-A322 (PEP)

### Nordic X-Lam

Nordic X-Lam cross-laminated timber (CLT) is made from Spruce-Pine-Fir species, and is certified to the ANSI/APA PRG 320 Standard. The surfaces are bonded with a one-component polyurethane (PUR) adhesive used with a primer. The finger joints are bonded with a polyurethane emulsion polymer (PEP) adhesive. These formaldehyde-free adhesives do not pose a health hazard and the quantities of glues are in a very low proportion of about 1% (mass-based).

#### Adhesives used:

- Face bonding: Henkel Loctite/Purbond HB-X (PUR) with PR 3105 Primer
- Finger-jointing: Ashland Isoset UX-160/WD3-A322 (PEP)

For environmental certifications: <https://www.nordic.ca/en/documentation/technical-documents#tag-31>

For the adhesive technical data sheets: <https://www.nordic.ca/en/documentation/technical-documents/ns-nt204-tds>

For the adhesive safety data sheets: <https://www.nordic.ca/en/documentation/technical-documents/ns-nt204-sds>

#### ----- Technical Data Sheets:

- Technical Data Sheet, Ashland Isoset CX-47
- Technical Data Sheet, Ashland Isoset UX-100
- Technical Data Sheet, Ashland Isoset UX-160
- Technical Data Sheet, Ashland Isoset WD3-A322
- Technical Data Sheet, Henkel Loctite/Purbond GT20
- Technical Data Sheet, Henkel Loctite/Purbond GT205
- Technical Data Sheet, Henkel Loctite/Purbond HB-X202
- Technical Data Sheet, Henkel Loctite/Purbond HB-X452
- Technical Data Sheet, Henkel Loctite/Purbond PR 3105
- GREENGUARD Certificate of Compliance, Loctite/Purbond GT20
- GREENGUARD Certificate of Compliance, Loctite/Purbond HB-X

#### Safety Data Sheets:

- Safety Data Sheet, Ashland Isoset CX-47
- Safety Data Sheet, Ashland Isoset UX-100
- Safety Data Sheet, Ashland Isoset UX-160
- Safety Data Sheet, Ashland Isoset WD3-A322
- Safety Data Sheet, Henkel Loctite/Purbond GT20
- Safety Data Sheet, Henkel Loctite/Purbond GT205
- Safety Data Sheet, Henkel Loctite/Purbond HB-X202
- Safety Data Sheet, Henkel Loctite/Purbond HB-X452
- Safety Data Sheet, Henkel Loctite/Purbond PR 3105