NORDIC
STRUCTURES

Adhesives used in Nordic Joist and Nordic Lam products

This technical note provides information on the adhesives used in Nordic Joist and Nordic Lam products.

Nordic Joist

Nordic I-joists are manufactured in compliance with ASTM D5055, with sawn lumber flanges and oriented strand board (OSB) webs. The web-to-flange joints are bonded using an emulsion polymer isocyanate (EPI) adhesive, while both web-to-web joints and finger joints are bonded with a polyurethane emulsion polymer (PEP) adhesive. The binder adhesives used to manufacture the web materials meet the requirements of DOC PS 2 and CSA O325, and contain no added urea-formaldehyde. The adhesives used to manufacture Nordic I-joists are exterior-type adhesives meeting the requirements of ASTM D5055 and contain no added urea-formaldehyde.

Adhesives used:
- Web-to-flange: Bostik Isoset WD3-A322/CX-47 (EPI)
- Web-to-web: Bostik Isoset UX-100/WD3-A322 (PEP)
- Finger jointing: Bostik Isoset UX-100/WD3-A322 or UX-160/WD3-A322 (PEP)

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 or a two-component polyurethane (PU-2K) adhesive. The finger joints are bonded with a polyurethane emulsion polymer (PEP) adhesive or a two-component polyurethane (PU-2K) adhesive. The adhesives conform to the requirements of ANSI 405 and CSA O112.9, which include durability requirements for exterior exposure conditions. 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:
  - Bostik Isoset WD3-A322/CX-47 (EPI)
  - Henkel Loctite/Purbond GT20/GT205 (PU-2K)
- Finger jointing:
  - Bostik Isoset UX-100/WD3-A322 or UX-160/WD3-A322 (PEP)
  - Henkel Loctite/Purbond GT20/GT205 (PU-2K)

For environmental certifications: https://www.nordic.ca/en/documentation/technical-documents#greencertification
For the adhesive technical data sheets: https://www.nordic.ca/en/documentation/technical-documents/ns-nt104-tds
For the adhesive safety data sheets: https://www.nordic.ca/en/documentation/technical-documents/ns-nt104-sds

---
Technical Data Sheets:
- Technical Data Sheet, Bostik Isoset CX-47
- Technical Data Sheet, Bostik Isoset UX-100
- Technical Data Sheet, Bostik Isoset UX-160
- Technical Data Sheet, Bostik Isoset WD3-A322
- Technical Data Sheet, Henkel Loctite/Purbond GT20
- Technical Data Sheet, Henkel Loctite/Purbond GT205
- GREENGUARD Certificate of Compliance, Loctite/Purbond GT20

Safety Data Sheets:
- Safety Data Sheet, Bostik Isoset CX-47
- Safety Data Sheet, Bostik Isoset UX-100
- Safety Data Sheet, Bostik Isoset UX-160
- Safety Data Sheet, Bostik Isoset WD3-A322
- Safety Data Sheet, Henkel Loctite/Purbond GT20
- Safety Data Sheet, Henkel Loctite/Purbond GT205