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## **ADESIVOS POLIURETANOS MONO COMPONENTES PARA A PRODUÇÃO DE PRODUTOS ESTRUTURAIS DE MADEIRA**

**Stefan Gerber** ([stefan.gerber@purbond.com](mailto:stefan.gerber@purbond.com)) – Center of Competence Purbond, Switzerland, **Merielen de Carvalho Lopes** ([merielen.lopes@nstarch.com](mailto:merielen.lopes@nstarch.com)), **Alvaro Garcia** ([alvaro.garcia@nstarch.com](mailto:alvaro.garcia@nstarch.com)) - National Starch & Chemical Industrial Ltda.

**RESUMO:** Adesivos poliuretanos mono componentes estão em crescente uso na produção de produtos estruturais de madeira através do mundo. Com características específicas e desempenho nas propriedades de uso, resistência e durabilidade, os adesivos poliuretanos oferecem novas possibilidades para o fabricante e consumidor, para o arquiteto e construtor. Para promover a introdução dos poliuretanos, as normas de classificação dos adesivos têm sido mudadas e continuam em progresso de mudança na maioria das regiões globais. Neste trabalho, Purbond apresenta uma revisão da situação das normas focadas para produtos estruturais de madeira (glulam, vigas I, madeira fingada, etc), as propriedades características dos poliuretanos, sua resistência e durabilidade.

**Palavras-chave:** produtos estruturais de madeira, adesivos poliuretanos

## **ONE-COMPONENT POLYURETHANE ADHESIVES FOR THE PRODUCTION OF ENGINEERED WOOD PRODUCTS**

**ABSTRACT:** One-component polyurethane adhesives are increasingly used in the production of engineered wood products across the world. With their specific characteristics and performance in terms usage properties and strength and durability, polyurethane adhesives offer new possibilities to the manufacturer and the end-user, the architect and building owner. To enable the introduction of polyurethane, adhesive classification standards had to be changed and still are in progress to be changed in most regions of the world. In this presentation, Purbond will give an overview on the standards situation today in respect of adhesives for engineered wood (glulam, I-joists, finger-jointed wood etc.), the characteristic properties of polyurethanes, and their strength and durability.

**KEY WORDS:** engineered wood products, one-component polyurethane adhesives

## 1. INTRODUCTION

One-component polyurethane PURBOND adhesives are increasingly used in the production of engineered wood products (EWP's) across the world. With their specific characteristics and performance in terms of usage properties and strength and durability, PURBOND adhesives offer new possibilities to the manufacturer and the end-user, the architect and building owner. PURBOND adhesives are suitable for the production of a variety of glued structural timber products (Figure 1), including:

- Finger-jointed timber (small and large dimensions)
- Glued laminated timber
- I-joists, I-beams and formwork beams
- Cross laminated panel
- Log-house building kits



Figure 1 - Application fields of PURBOND adhesives