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| Nota di contenuto | Engineered Wood Products as Construction Material -- Fundamentals of Fire and Combustion -- Fire Resistance -- One-Dimensional Charring Rate for Laminated Veneer Lumber from Malaysian Tropical Timber -- Two-Dimensional Charring Rate for Laminated Veneer Lumber from Malaysian Tropical Timber. |
| Sommario/riassunto | This book highlights the charring rate performance of LVL made from tropical hardwood according to EN 13381-7 and BS 476 standards. Laminated Veneer Lumber (LVL) is produced by bonding layers of wood veneers using adhesives, heat, and pressure, resulting in products that are typically stronger, more dimensionally stable, and more resistant to environmental factors than solid timber. This makes LVL highly versatile for use in structural components of buildings. However, there remains limited knowledge about how LVL, particularly those made from tropical hardwood, performs under fire exposure. Understanding the charring process, where the outer wood layers degrade and form a protective char layer insulating the core helps engineers estimate the |

load-bearing capacity of LVL during a fire. Experimental studies and predictive models are discussed to provide insights into charring behavior under different conditions. The findings contribute to enhancing fire safety design in timber construction, ensuring compliance with international standards and improving the resilience of timber buildings during fire scenarios.