

TECHNICAL BULLETIN

GMX Group Deck and Atringer Material Spans Structural Review & Calculations

Scope:

Engineering calculations have been carried out to evaluate the performance of the product based on comparative and/or rational analysis, focusing on:

- The maximum permissible spans for both stringers and decking.
- The maximum allowable beam spans under various load scenarios, including dead, live, wind, and snow loads for decking applications.

Note: These calculations cover only the span capabilities of the product. They do not address connections or system designs, which must be evaluated separately on a site-specific basis using these fundamental criteria.

Material Sizes:

The BLACK LABEL decking system includes a range of tropical hardwoods, available in the following thicknesses:

- 0.75"
- 0 1"
- 0 1.5"
- 0 2.5"
- 0 3.5"

Beam and Stinger Sizes (Actual):

- 1.5" X 5.5", 1.5" X 7.25", 1.5" X 9.25", 1.5" X 11.15"
- 2.5" X 5.5", 2.5" X 7.25", 2.5" X 9.25", 2.5" X 11.15"
- 3.5" X 5.5", 3.5" X 7.25", 3.5" X 9.25", 3.5" X 11.15"
- 5.5" X 5.5", 5.5" X 7.25", 5.5" X 9.25", 5.5" X 11.15"

General Notes:

- 1) The design and fabrication of this system adhere to the 2015 International Residential Code and International Building Code, including specifications for Naturally Durable Wood.
- 2) This document is intended specifically for BLACK LABEL brand products and should not be applied to other products unless they are verified to be BLACK LABEL™ through official documentation.
- 3) Engineering Express does not provide certification for wood species without appropriate testing results. The minimum required thresholds are listed below. These thresholds must be independently confirmed, and only if the manufacturer can substantiate all parameters will these span charts be deemed valid for code compliance.
- 4) BLACK LABEL Naturally Durable Hardwood Species must conform to the following technical requirements:
 - Material must be graded according to BLACK LABEL Grading Standards: Premium Select, FEQ, COM SEL/FAS.
 - It must meet or exceed NFPA Class B Fire Rating, tested in accordance with ASTM E84 standards.