



TruNorth Deck Enviroboard Deck Board

Confirmation of Professional Design and Test review

Prepared for:

Trunorth Composites Inc
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Brantford, ON
N3S 7W2

Prepared by:

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BACKGROUND

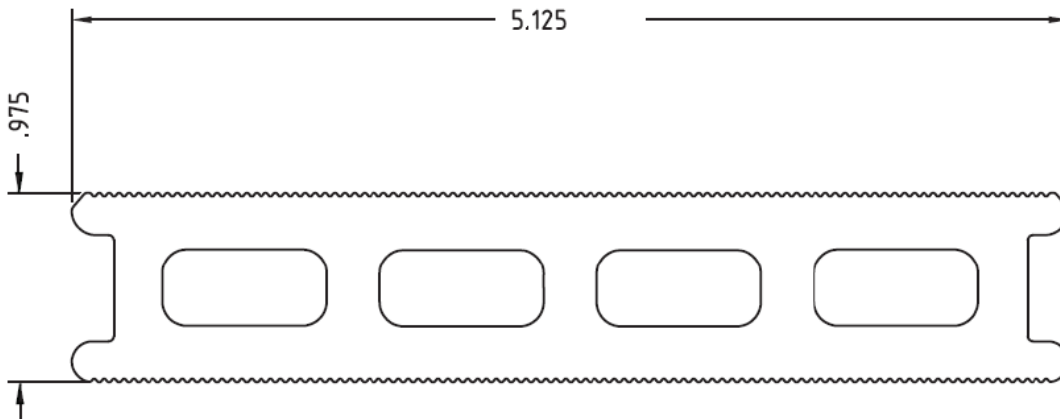
MXL Engineering & Associates Inc has been engaged to provide structural engineering review of the Enviroboard Deck Board manufactured by TruNorth Composites Inc. The Enviroboard decking is a Wood Plastic Composite product comprised of high-density polyethylene (HDPE) and rice hulls which is to be used as deck board. Enviroboard deck board to be fastened using Slide & Go Hidden Fastening Clip. This report addresses the structural adequacy of using this product as an exterior residential deck board for any location in Ontario, Canada.

COMMENTS

TruNorth Composites Inc has provided MXL Engineering a summary of material test results from independent testing laboratory Intertek Testing Services NA LTD. The results are based on tests completed using standard test methods described by ASTM D198-08, Standard Test Methods of Static Tests of Lumber in Structural Sizes.

Results are given APPENDIX A: Test Data in the attached report.

Figure 1 – TRUNORTHDECK™ Composite Deck Boards – Mono-Extruded



SUMMARY OF RESULTS

Grooved Edge

Max Load = 347.9 Lbs

Deflection = 1.32 Inch

MOR (Modulus of Rupture) = 18.7 Mpa

MOE (Modulus of Elasticity)= 2739 Mpa

The structural analysis was based on the assumption that the boards are supported by structural framing spaced at 16"o.c. as indicated TruNorth Composites Inc Installation Instructions (see attached).
Based on the mechanical properties provided by Trunorth Composites Inc and Intertek Testing Services NA, LTD and our structural analysis, it is our opinion that the Enviroboard deck boards are structurally adequate to support a maximum specified occupancy load of 1.9 kPa (40 psf) or a maximum specified roof snow load of 2.9 kPa (61 psf) in Ontario, Canada as specified in the Ontario Building Code 2012 Clauses 9.4.2.2 and 9.4.2.3. respectively.

SUMMARY OF RESULTS

This report is based on test results determined by independent testing companies and forwarded to MXL Engineering by TruNorth Composites Inc. No test have been performed by MXL Engineering. No attempt to verify the accuracy of the test results has been performed by MXL Engineering. MXL Engineering has not investigated the long term effects of outdoor exposure to the deck material. TruNorth Composites Inc assumes all liability for material deterioration in their product warranty.

The Undersigned hereby gives assurance that the structural testing of the deck components, in support for the testing and compliance, substantially comply with the Ontario Building code and other applicable regulations with regards to owner and public safety.



Per: Bruno Lopes, P.Eng

Principal

Encl: Intertek Testing Services NA, LTD Report