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<b>Attention:</b>	Gary Steroven	<b>Report Date:</b>	October 14, 2009
<b>Specimen:</b>	Sure-Step Docking	<b>Received Date:</b>	October 9, 2009

**TEST REPORT**

**FLEXURAL PROPERTIES**

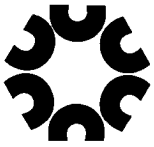
The baseline flexural properties were determined according to ASTM D7032-07, Section 4.4 and 5.2, and ASTM D6109-05, Method A and Appendix X1 using a load span equal to 1/3 of the support span. The testing parameters are outlined below.

Testing Position	Flatwise
Sample Size, length x width x nominal depth	4 ft. x 11-5/8 in. x 1 in.
Support Span (L)	16 in.
Support Span to Depth Ratio	16 : 1
Testing Speed	0.3375 in./minute
Radius of Support Noses	2 in.
Radius of Loading Noses	1 in.
Testing Machine	United SFM20
Operating Software	Satec Partner Version 2.6c
Deflection Measurement	Instron PD-1M Deflectometer
Moment of Inertia (Provided by JIMDI Inc.)	0.235 in. <sup>4</sup>

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Distance from Neutral Axis to Extreme Fibres (Provided by JIMDI Inc.)	0.628 in.
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### FLEXURAL PROPERTIES (Cont'd)

For each flexural test conducted, the operating software recorded the deflection of the deck board at the mid-span between the supports and the corresponding load. The software calculated the slope of the load-deflection curve between the pre-selected limits corresponding to 10% and 40% of peak load.

The boards were tested at 68±4°F. The rate of loading was such that failure was achieved between 10 seconds and 5 minutes.

The key properties recorded and calculated for each board sample tested were:

**Maximum Load** measured in pounds-force (lbf) – this property was recorded from the load-deflection curve at the point where the maximum load occurred due to rupture or yield, or where the mid-span deflection reached the three percent strain limit.

**Load at L/180** measured in pounds-force (lbf) – this property was recorded from the load-deflection curve at the deflection corresponding to the support span (L) divided by 180.

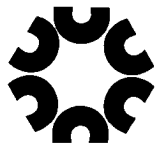
**Modulus of Rupture (MOR)** measured in pounds force per square inch (psi) – this property was calculated using the following equation:

$$\text{MOR} = \frac{(\text{Maximum Load} \times \text{Support Span} \times \text{Distance from Neutral Axis to Extreme Fibres})}{(6 \times \text{Moment of Inertia})}$$

**Slope of Tangent** measured in lbf/in – this property was recorded from the load-deflection curve between 10% and 40% of the peak load.

**Modulus of Elasticity (MOE)** measured in pounds force per square inch (psi) – this property was calculated using the following equation:

$$\text{MOE} = \frac{(\text{Support Span}^3 \times \text{Slope of Tangent})}{(56.25 \times \text{Moment of Inertia})}$$



**FLEXURAL PROPERTIES (Cont'd)**

**RESULTS**

<b>Sample</b>	<b>Load at 3% Strain* (lbf)</b>	<b>Load at L/180 (lbf)</b>	<b>MOR* (psi)</b>	<b>Slope of Tangent (lbf/in)</b>	<b>MOE (psi)</b>
1	901	94	6,420	979	303,000
2	913	126	6,510	1,032	320,000
3	887	96	6,320	1,029	319,000
4	910	104	6,480	1,019	316,000
5	914	108	6,510	1,038	322,000
<b>Mean</b>	<b>905</b>	<b>106</b>	<b>6,448</b>	<b>1,019</b>	<b>316,000</b>
<b>Std. Dev. +/-</b>	<b>11</b>	<b>13</b>	<b>80</b>	<b>24</b>	<b>7,583</b>

\*Notes:

The maximum load (i.e. load at rupture or load at yield) does not occur prior to the 3% strain limit therefore the Modulus of Rupture (MOR) is calculated from the load at 3% strain in accordance with ASTM D7032-07 Section 4.4.1 and ASTM D6109-05 Sections 4.1.2 & 10.1.7.

3% strain occurs at a mid-span deflection of 1.3 in.