SOUND TRANSMISSION LOSS TEST REPORT NO. TL13-518

CLIENT: MI Windows & Doors
7555 E State Route 69
Prescott, AZ 86314

TEST DATE: 14 August 2013

INTRODUCTION
The methods and procedures used for each test conform to the provisions and requirements of ASTM E 90-09, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and ASTM E2235-04, Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods. Copies of the test standard are available at www.astm.org. The test chamber source and receiving room volumes are 204 and 148.4 cubic meters respectively. Western Electro-Acoustic Laboratory is accredited by the United States Department of Commerce, National Institute of Standards and Technology under the National Voluntary Accreditation Program (NVLAP) Lab Code 100256-0 for this test procedure. This test report relates only to the item(s) tested. This report must not be used to claim product certification, approval, or endorsement by WEAL, NVLAP, NIST or any agency of the federal government.

DESCRIPTION OF TEST SPECIMEN
The test specimen was a MI Windows 5610 Polyvinyl Chloride (PVC) Vinyl Fixed Window assembly. (According to the manufacturer, this product is also produced as a Series 5900.) The specimen was installed by fastening the mounting fin around the entire perimeter to the wood edge of the test chamber opening. The assembly was sealed into the test chamber opening with latex caulking under the mounting fin and a heavy duct seal putty around the entire perimeter on the receiving room side. The glazing consisted of a nominal 19 mm (3/4 inch) dual glazed unit which was 3 mm (1/8 inch) double strength exterior glass, 12 mm (15/32 inch) air space with a Dura Lite spacer, and 5 mm (3/16 inch) monolithic interior glass. The unit was glazed into the main frame using glazing tape and a vinyl snap in bead. The net outside frame dimensions of the window assembly were 1.82 m (71-1/2 inches) wide by 1.21 m (47-1/2 inches) high by 69.9mm (2-3/4 inches) deep. The overall weight of the assembly was 44.4 kg. (98 lbs.) for a calculated surface density of 20.3 kg/m²(4.15 lbs./ft²). The weep holes were normal without covers.

RESULTS OF THE MEASUREMENTS
One-third octave band sound transmission loss values are plotted and tabulated on the attached sheet. ASTM minimum volume requirements are met at 80 Hz and above. The Outdoor-Indoor Transmission Class rating determined in accordance with ASTM E 1332-10a was OITC-26. The Sound Transmission Class rating determined in accordance with ASTM E 413-10 was STC-32.

Approved:  

Respectfully submitted,
Western Electro-Acoustic Laboratory

Gary E. Mange
Laboratory Director

Raul Martinez
Acoustical Test Technician

Report must be distributed in its entirety except with written authorization from Western Electro-Acoustic Laboratory
**Western Electro-Acoustic Laboratory**

Report No. TL13-518

---

**Transmission Loss in Decibels**

<table>
<thead>
<tr>
<th>Frequency in Hertz</th>
<th>63</th>
<th>80</th>
<th>100</th>
<th>125</th>
<th>160</th>
<th>200</th>
<th>250</th>
<th>315</th>
<th>400</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1/3 OCT BND CNTR FREQ</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TL in dB</td>
<td>63</td>
<td>80</td>
<td>100</td>
<td>125</td>
<td>160</td>
<td>200</td>
<td>250</td>
<td>315</td>
<td>400</td>
<td>500</td>
</tr>
<tr>
<td>95% Confidence in dB deficiencies</td>
<td>*22</td>
<td>22</td>
<td>24</td>
<td>22</td>
<td>23</td>
<td>20</td>
<td>18</td>
<td>22</td>
<td>24</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>1.42</td>
<td>1.92</td>
<td>2.07</td>
<td>1.47</td>
<td>0.89</td>
<td>0.76</td>
<td>(2)</td>
<td>0.80</td>
<td>(7)</td>
<td>0.52</td>
</tr>
</tbody>
</table>

**1/3 OCT BND CNTR FREQ**

<table>
<thead>
<tr>
<th>Frequency in Hertz</th>
<th>63</th>
<th>80</th>
<th>100</th>
<th>125</th>
<th>160</th>
<th>200</th>
<th>250</th>
<th>315</th>
<th>400</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1/3 OCT BND CNTR FREQ</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TL in dB</td>
<td>630</td>
<td>800</td>
<td>1000</td>
<td>1250</td>
<td>1600</td>
<td>2000</td>
<td>2500</td>
<td>3150</td>
<td>4000</td>
<td>5000</td>
</tr>
<tr>
<td>95% Confidence in dB deficiencies</td>
<td>32</td>
<td>36</td>
<td>38</td>
<td>40</td>
<td>41</td>
<td>40</td>
<td>37</td>
<td>36</td>
<td>33</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>0.29</td>
<td>0.44</td>
<td>0.38</td>
<td>0.39</td>
<td>0.36</td>
<td>0.56</td>
<td>0.55</td>
<td>0.31</td>
<td>0.32</td>
<td>0.50</td>
</tr>
</tbody>
</table>

---

**EWR** 32  **OITC** 26

*Minimum estimate of transmission loss. Measurement limited by filler wall. Actual TL will be equal to or greater than value reported.*

Specimen Area: 23.59 sq.ft.
Temperature: 72.9 deg. F
Relative Humidity: 47%
Test Date: 14 August 2013

---

Report must be distributed in its entirety except with written authorization from Western Electro-Acoustic Laboratory.