

# Model SWA (Scrim Wrapped Absorber)

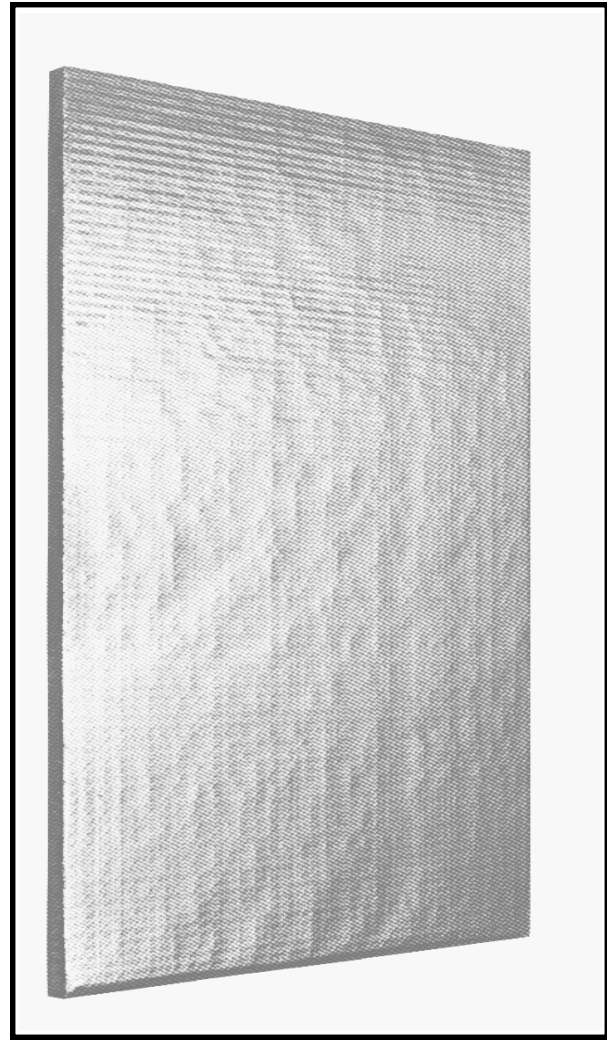
Model SWA Scrim Wrapped Absorber, as manufactured by NSTI, is a highly efficient tuned noise absorber designed for mid to low frequency absorption. Model SWA consists of a semirigid fiberglass core completely encapsulated within a 2 mil thick reinforced foil/polypropylene cover.

The absorber is available in standard sizes up to 4' x 8' and in thicknesses 1 and 2 inches. NRC's are 0.75 and 0.94, respectively, when tested in a number 4 mounting (Direct Mounted). SWA's "Flame Spread" and "Smoked Developed" ratings of 5 each provides suitability for applications requiring low flame and smoke emissions.

The board like absorbers offer good structural integrity and damage resistance. They can be used in temperatures ranging from -40° to 450°F.

## Benefits:

- ◆ **NRC** - Up to 0.94.
- ◆ **Tuned** - for mid and low frequency response.
- ◆ **Wide Temperature Ranges** - from -40° to 450°F
- ◆ **Environment Safe** - Lead and asbestos free.
- ◆ **USDA/FDA Certified**
- ◆ **Custom Designs** - custom sizes and thicknesses.  
Available in reflective foil and bright white polypropylene facings.
- ◆ **Durable** - Tear and puncture resistance. Offers oil and chemical resistance. Will not rot, shrink, or cause metal corrosion.
- ◆ **Fire Safe** - Low smoke and flame characteristics.
- ◆ **Easy Installation** - using adhesives or mechanical fasteners.
- ◆ **Cleanable** - Steam cleanable.
- ◆ **Moisture Resistant**



## Applications:

- ◆ **Wall Mounted Panels** - reduces in plant ambient noise levels.
- ◆ **Absorptive lining for existing metal housings.**
- ◆ **Duct Lining**
- ◆ **Engine Housing Liners**
- ◆ **Excellent alternative to drop in ceiling tiles.**

*NSTI designs custom noise control solutions for your specific applications.*

**Noise Suppression Technologies, Inc.**  
**Model SWA - Performance Data**

**MATERIALS EMPLOYED**

Aluminum Foil	0.0003"
Scrim	Fiberglass Scrim Reinforcement 4/inch x 4/inch
Adhesive	Flame Resistant
Film	0.0015" UV Stabilized White Polypropylene

**PHYSICAL PROPERTIES**

Basis Weight	15 lbs./MSF ± 10%
Permeance (MVTR) (ASTM E-96) Dry Cup, Proc. A.	0.02 Perms Maximum
Mullen Bursting Strength (ASTM D-774)	85 P.S.I. Minimum
Puncture Resistance—Beach (ASTM D-781)	100 Units Minimum
Tensile Strength (ASTM D-828)	M.D. 40 lbs./In. Width Avg. CD. 40 lbs./In. Width Avg.
Bond	Unable to delaminate without destroying the facing.
Light Reflectance (ASTM C-523 [500 nm])	90.5%

**ENVIRONMENTAL TESTING**

Weather Resistance	No corrosion or delamination at 120°F, 95% relative humidity for 30 days
Temperature Resistance	The laminate withstands 4 hours at 150° F without delamination.
Water Resistance	Withstands 24 hour H <sub>2</sub> O immersion at 70°F without delamination.
Cold Weather Flexibility Masland Cold Crack (ASTM D-1790)	At -40°F passes with no cracking of the polypropylene surface.
Dimensional Stability (ASTM D-1204)	AD.± 0.125% M.D. ± 0.125%

**Sound Absorption Coefficients**

**1" and 2" Thick #4 Mounting**

Frequency,Hz	1" Thick	2" Thick
<b>125</b>	<b>0.13</b>	<b>0.26</b>
<b>160</b>	<b>0.15</b>	<b>0.35</b>
<b>200</b>	<b>0.21</b>	<b>0.62</b>
<b>250</b>	<b>0.32</b>	<b>0.80</b>
<b>315</b>	<b>0.50</b>	<b>1.01</b>
<b>400</b>	<b>0.73</b>	<b>1.18</b>
<b>500</b>	<b>0.95</b>	<b>1.23</b>
<b>630</b>	<b>1.06</b>	<b>1.17</b>
<b>800</b>	<b>1.10</b>	<b>1.08</b>
<b>1000</b>	<b>1.08</b>	<b>1.00</b>
<b>1250</b>	<b>0.93</b>	<b>0.93</b>
<b>1600</b>	<b>0.76</b>	<b>0.81</b>
<b>2000</b>	<b>0.62</b>	<b>0.71</b>
<b>2500</b>	<b>0.55</b>	<b>0.64</b>
<b>3150</b>	<b>0.53</b>	<b>0.53</b>
<b>4000</b>	<b>0.46</b>	<b>0.43</b>
<b>NRC</b>	<b>0.75</b>	<b>0.94</b>

NSTI believes the information contained herein to be accurate as of the publication date. Actual product performance may vary based on specific application conditions.

SWA  
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