

# Measurement of sound absorption in an impedance tube

According to the standard SFS-EN ISO 10534-2

Client: **Ovacon AB**  
 Vånevik, Stora Viskär 572 93 OSKARSHAMN, Sweden  
 Eddie Ericsson

Sample: Manufacturer: **Ovacon AB**  
 Product: **Spraytec A**  
 Structure: **< 1 mm sprayed surface**  
**28 mm sprayed glass wool**

Overall thickness: **~ 30 mm**

Date of measurement: **31.1.2006**

Measurement system: **Impedance tube, Brüel & Kjær Type 4206**  
 Details on the measurement system are available in a separate report.

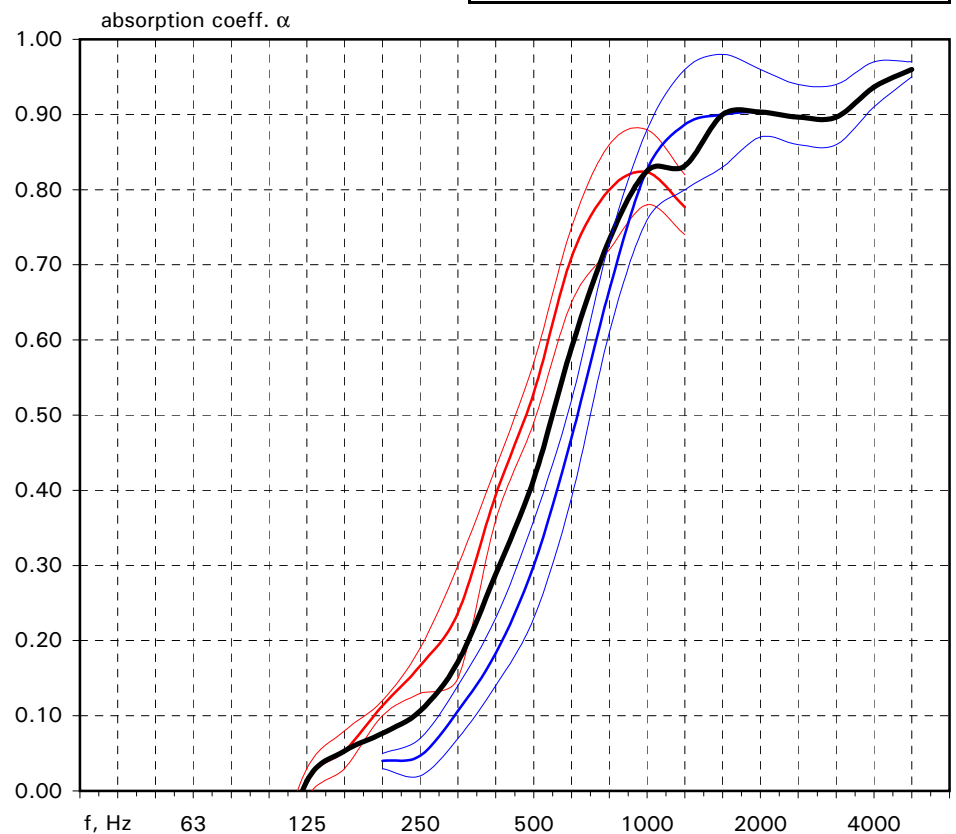
Number of samples: **3 x**     $\varnothing$  100 mm  
**3 x**     $\varnothing$  29 mm

Conditions: Temperature: **21**    °C  
 Humidity: **101,1**    kPa

Measurement results:

— absorption coefficient mean value  
 — 100 and 29 mm sample averages  
 — deviation of individual results

f Hz	$\alpha$
50	0.00
63	0.00
80	0.00
100	0.00
125	0.01
160	0.05
200	0.08
250	0.11
315	0.17
400	0.29
500	0.42
630	0.59
800	0.73
1000	0.83
1250	0.83
1600	0.90
2000	0.90
2500	0.90
3150	0.90
4000	0.94
5000	0.96



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Sample: Manufacturer: **Ovacon AB**  
 Product: **Spraytec A**  
 Structure: **< 1 mm sprayed surface**  
**40 mm sprayed glass wool**

Overall thickness: **~40-45 mm**

Date of measurement: **31.1.2006**

Measurement system: **Impedance tube, Brüel & Kjær Type 4206**  
 Details on the measurement system are available in a separate report.

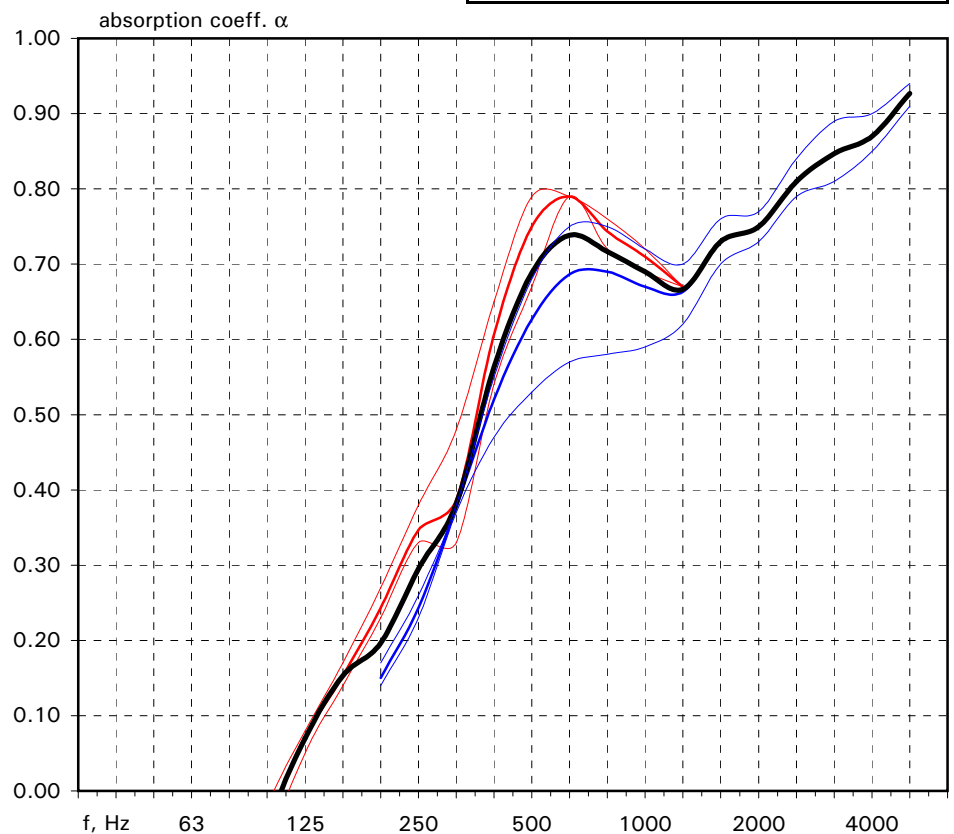
Number of samples: **3 x**     $\varnothing$  **100 mm**  
**3 x**     $\varnothing$  **29 mm**

Conditions: Temperature: **21**    °C  
 Humidity: **101,1**    kPa

Measurement results:

— absorption coefficient mean value  
 — 100 and 29 mm sample averages  
 — deviation of individual results

f Hz	$\alpha$
50	<b>0.00</b>
63	<b>0.00</b>
80	<b>0.00</b>
100	<b>0.00</b>
125	<b>0.07</b>
160	<b>0.15</b>
200	<b>0.20</b>
250	<b>0.30</b>
315	<b>0.38</b>
400	<b>0.56</b>
500	<b>0.69</b>
630	<b>0.74</b>
800	<b>0.72</b>
1000	<b>0.69</b>
1250	<b>0.67</b>
1600	<b>0.73</b>
2000	<b>0.75</b>
2500	<b>0.81</b>
3150	<b>0.85</b>
4000	<b>0.87</b>
5000	<b>0.93</b>



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Client: **Ovacon AB**  
**Vånevik, Stora Viskär 572 93 OSKARSHAMN, Sweden**  
**Eddie Ericsson**

Sample: Manufacturer: **Ovacon AB**  
 Product: **Sprex S / Spraytec**  
 Structure: **30 mm sprayed stone wool**

Overall thickness: **~ 30 mm**

Date of measurement: **31.1.2006**

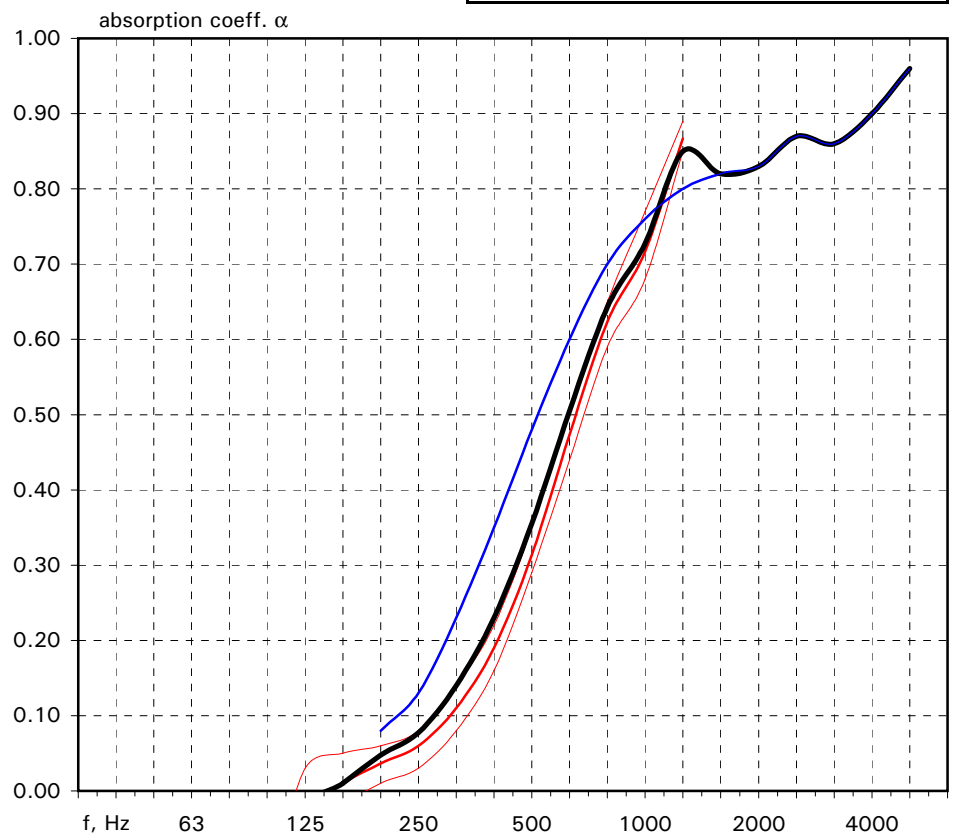
Measurement system: **Impedance tube, Brüel & Kjær Type 4206**  
 Details on the measurement system are available in a separate report.

Number of samples: **3 x**     $\varnothing$  100 mm  
**1 x**     $\varnothing$  29 mm

Conditions: Temperature: **21**    °C  
 Humidity: **101,1**    kPa

Measurement results:

f Hz	$\alpha$
50	<b>0.00</b>
63	<b>0.00</b>
80	<b>0.00</b>
100	<b>0.00</b>
125	<b>0.00</b>
160	<b>0.01</b>
200	<b>0.05</b>
250	<b>0.08</b>
315	<b>0.14</b>
400	<b>0.23</b>
500	<b>0.36</b>
630	<b>0.51</b>
800	<b>0.64</b>
1000	<b>0.73</b>
1250	<b>0.85</b>
1600	<b>0.82</b>
2000	<b>0.83</b>
2500	<b>0.87</b>
3150	<b>0.86</b>
4000	<b>0.90</b>
5000	<b>0.96</b>



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According to the standard SFS-EN ISO 10534-2

Client: **Ovacon AB**  
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Sample: Manufacturer: **Ovacon AB**  
 Product: **Sprefix S / Spraytec**  
 Structure: **40 mm sprayed stone wool**

Overall thickness: **~40 mm**

Date of measurement: **31.1.2006**

Measurement system: **Impedance tube, Brüel & Kjær Type 4206**  
 Details on the measurement system are available in a separate report.

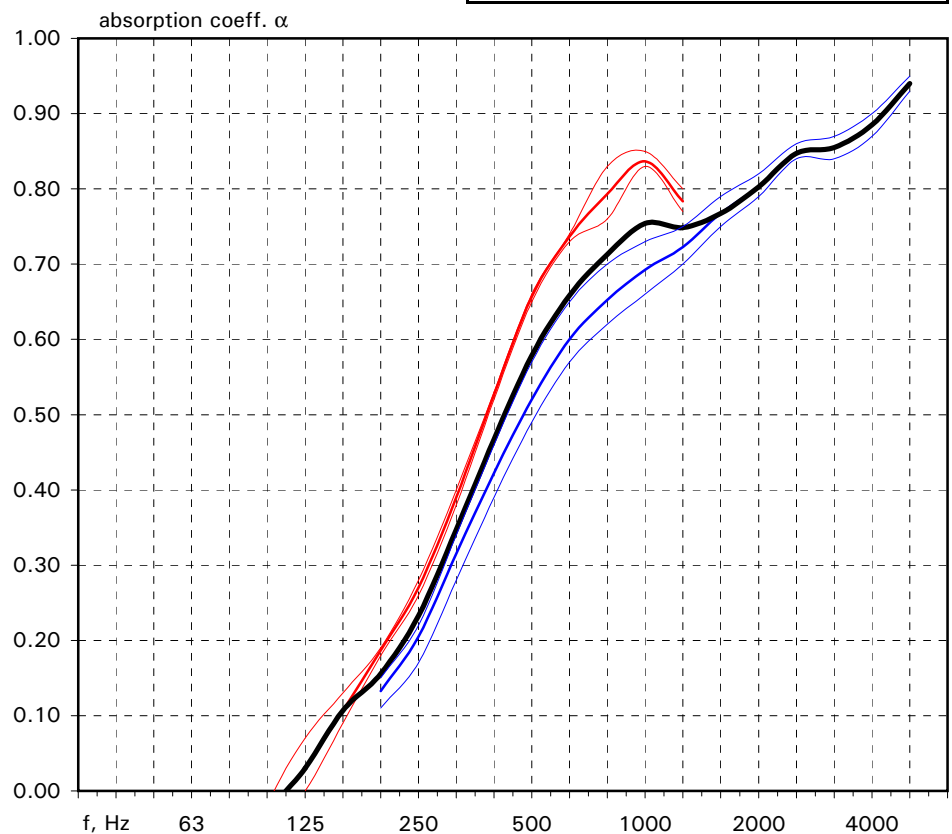
Number of samples: **3 x**     $\varnothing$  100 mm  
**4 x**     $\varnothing$  29 mm

Conditions: Temperature: **21**    °C  
 Humidity: **101,1**    kPa

Measurement results:

— absorption coefficient mean value  
 — 100 and 29 mm sample averages  
 — deviation of individual results

f Hz	$\alpha$
50	<b>0.00</b>
63	<b>0.00</b>
80	<b>0.00</b>
100	<b>0.00</b>
125	<b>0.03</b>
160	<b>0.11</b>
200	<b>0.16</b>
250	<b>0.23</b>
315	<b>0.35</b>
400	<b>0.47</b>
500	<b>0.58</b>
630	<b>0.66</b>
800	<b>0.71</b>
1000	<b>0.75</b>
1250	<b>0.75</b>
1600	<b>0.77</b>
2000	<b>0.80</b>
2500	<b>0.85</b>
3150	<b>0.86</b>
4000	<b>0.89</b>
5000	<b>0.94</b>



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Sample: Manufacturer: **Ovacon AB**  
 Product: **Sprefix S / Spraytec**  
 Structure: **60 mm sprayed stone wool**

Overall thickness: **~60 mm**

Date of measurement: **31.1.2006**

Measurement system: **Impedance tube, Brüel & Kjær Type 4206**  
 Details on the measurement system are available in a separate report.

Number of samples: **3 x**     $\varnothing$  **100 mm**  
**4 x**     $\varnothing$  **29 mm**

Conditions: Temperature: **21**    °C  
 Humidity: **101,1**    kPa

Measurement results:

f Hz	$\alpha$
50	<b>0.00</b>
63	<b>0.00</b>
80	<b>0.00</b>
100	<b>0.00</b>
125	<b>0.09</b>
160	<b>0.21</b>
200	<b>0.29</b>
250	<b>0.41</b>
315	<b>0.53</b>
400	<b>0.64</b>
500	<b>0.72</b>
630	<b>0.76</b>
800	<b>0.80</b>
1000	<b>0.81</b>
1250	<b>0.80</b>
1600	<b>0.87</b>
2000	<b>0.91</b>
2500	<b>0.91</b>
3150	<b>0.91</b>
4000	<b>0.93</b>
5000	<b>0.97</b>

