

Bauaufsichtlich anerkannte Stelle  
für Prüfung, Überwachung und Zer-  
tifizierung  
Zulassung neuer Baustoffe, Bauteile  
und Bauarten  
Forschung, Entwicklung, Demonstra-  
tion und Beratung auf den Gebieten  
der Bauphysik

Institutsleitung  
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## Supplement to P-BA 259/2012e

**Sound absorption coefficient of coated mineral wool boards in  
the reverberation room acc. to DIN EN ISO 354: 2003 and  
DIN EN ISO 11 654: 1997, Noise Reduction Coefficient (NRC) and  
Sound Absorption Average (SAA) acc. to ASTM C423 - 09a**

### **Client:**

Sonacoustic International b.v.  
Amsterdamseweg 13 M  
NL-1422 AC-Uithoorn

The sound absorption coefficient of the acoustic boards "Sonaboard" made of mineral wool with different coverings specified in P-BA 259/2012e (test objects S 10525-03, -05, -06, -07, -08, -09), was measured on October 9 + 10, 2012 according to DIN EN ISO 354: 2003.

The determination of the **weighted sound absorption coefficient**  $\alpha_w$  was been carried out according to DIN EN ISO 11654: 2006 with the following results:

version 1 (S 10525-05):	$\alpha_w = 0.80$	sound absorber class: B;
version 2 (S 10525-06):	$\alpha_w = 0.70$	sound absorber class: C;
version 3 (S 10525-03):	$\alpha_w = 0.75$	sound absorber class: C;
version 4 (S 10525-07):	$\alpha_w = 0.90$	sound absorber class: A;
version 5 (S 10525-08):	$\alpha_w = 0.95$	sound absorber class: A;
version 6 (S 10525-09):	$\alpha_w = 0.90$ (L)	sound absorber class: A.

The **noise reduction coefficient NRC** according to ASTM C423 - 09a is the average of the sound absorption coefficients for 250 Hz, 500 Hz, 1000 Hz und 2000 Hz rounded off to the nearest multiple of 0.05:

version 1: NRC = 0.80;
version 2: NRC = 0.70;
version 3: NRC = 0.80;
version 4: NRC = 0.85;
version 5: NRC = 0.90;
version 6: NRC = 0.90.

The **sound absorption average SAA** according to ASTM C423 - 09a corresponds to the arithmetic average of the one-third octave sound absorption coefficient values  $\alpha_i$  for the twelve one-third octave frequency bands from 200 to 2 500 Hz rounded off to the nearest multiple of 0.01:

version 1: SAA = 0.78;
version 2: SAA = 0.68;
version 3: SAA = 0.79;
version 4: SAA = 0.86;
version 5: SAA = 0.89;
version 6: SAA = 0.89.

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SMu/Be

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