



S O U N D
A B S O R
P T I O N



SOUND ONE STANDARD THAT MEETS ALL

Characteristics of reflection and absorption are measured by the degree of sound absorption in a space. Every element in a room has a sound absorption factor that affects the room acoustics. Sound absorption is measured by calculating the reverberation time in the frequency range 100 to 5000 Hz, in accordance with EN ISO 354.

The test compares results between an empty reverberation chamber and one containing the test product. The sound absorption in a room is defined by how reverberant a room appears. Speech intelligibility depends on the reverberation time of the room.

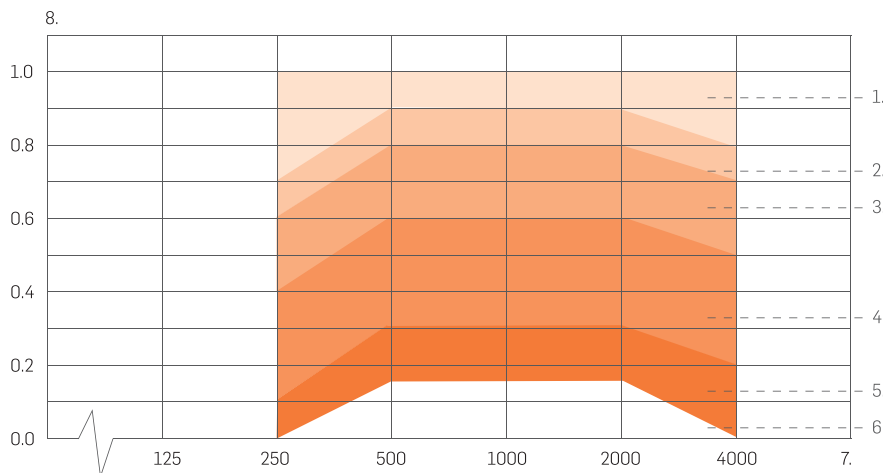
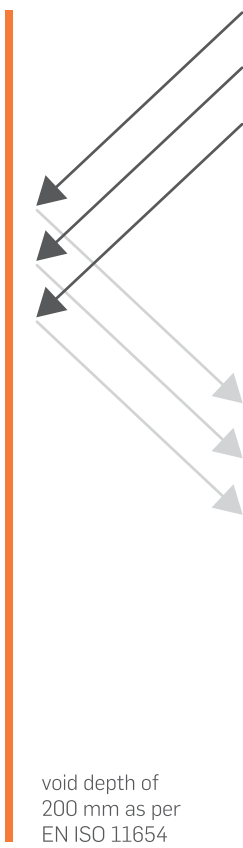
The NRC (Noise Reduction Coefficient) is a single value based on the arithmetic average of the four sound absorbent values at 250, 500, 1000 and 2000 Hz and then rounded to the nearest 0.05 (ASTM C 423-90 A).

The weighted sound absorption coefficient α_w is determined according to BS EN ISO 11654. The individual sound absorption coefficients (α_s) - measured in accordance with BS EN ISO 354 - are converted to the practical sound absorption coefficient α_p for octave bands 250, 500, 1000, 2000 and 4000 Hz.

$$\alpha_p(f) = \frac{\alpha_{11} + \alpha_{12} + \alpha_{13}}{3}$$

A standard reference curve is shifted against this α_p curve until the two graphs match as closely as possible. The weighted sound absorption coefficient α_w is the single figure rating then obtained at 500 Hz. Shape indicators L, M and H are applied to the weighted sound absorption coefficients where the measured coefficient exceeds the reference curve at one or more frequencies by at least 0.25.

- L - excess of absorption at 250 Hz
- M - excess of absorption at 500 to 1000 Hz
- H - excess of absorption at 2000 to 4000 Hz.



7. f+-frequency Hz
8. α_p Practical absorption coefficient



sound absorption

sound absorption class (as per ISO 11654)	α_w – value	absorption class	NRC
A (1.)	0.90 ; 0.95 ; 1.00	extremely absorbing	>0.75
B (2.)	0.80 ; 0.85	extremely absorbing	
C (3.)	0.60 ; 0.65 ; 0.70 ; 0.75	highly absorbing	0.50 - 0.75
D (4.)	0.30 ; 0.35 ; 0.40 ; 0.45 ; 0.50 ; 0.55	absorbing	
E (5.)	0.15 ; 0.20 ; 0.25	hardly absorbing	0.25 – 0.50
not classified (6.)	0.05 ; 0.10	reflecting	<0.25

Collection/design name	ISO 11654 category draped	ISO 11654 category flat
Annex	"C"	"C"
Blackout Choice - all designs	"D"	"E"
Bunbury	"B"	"C"
Candide	"B"	"C"
Classic Damasks - all designs	"D"	"D"
Classic Wovens - Mendoza	"B"	"C"
Classic Wovens - Sierras, Pampas	"C"	"C"
Composition - Genoa, Piacenza, Verona, Versilia	"B"	"C"
Composition - La Spezia, San Marino, Viterbo	"C"	"D"
Cutting Edge - Papier	"C"	"C"
Darwin	"C"	"D"
Diplomacy - Courier, Envoy	"B"	"C"
Diplomacy - Emissary, Consul	"A"	"C"
Draperies Compendium - Aosta, Bolzano, Trento	"C"	"D"
Draperies Compendium - Arezzo, Forli, Mantua, Terni	"D"	"D"
Draperies Elements FR-One - all designs	"B"	"D"
Draperies Fusion - Andover, Brentwood, Callington, Kendal, Ferryhill	"C"	"D"
Draperies Fusion - Eastgate, Frosterly, Stanhope	"D"	"D"
Draperies Impressions - Aldebara	"B"	"B"
Draperies Impressions - Andorra, Alicante, Barcelona, Mallorca, San Isidro, Fasnia	"A"	"C"
Draperies Spectrum - Guilford	"C"	"D"
Draperies Spectrum - Tadley, Helmsley, Hastings, Burgess Hill	"D"	"D"
Draperies Style - all designs	"C"	"D"
Duma	"B"	"C"
Eclectic Style - all designs	"A"	"C"
Framework - all designs	"A"	"B"
Holzer	"B"	"C"
Jacquard Medley - Aleucon, Bayeux, Cherbourg, Deauville	"C"	"D"
Jacquard Medley - Auray, Honfleur	"D"	"D"
Jacquard Style - all designs	"D"	"D"
Jubilee - Argentina, Formosa, Buenos Aires, San Luis	"E"	sheers
Jubilee - Asuncion, Comodoro, Fox Bay, Montevideo, Saunders, Weddell	"C"	"D"
Jubilee - Esquel, Lafonia, Valparaiso	"C"	"C"
Kemp	"C"	"D"
Kintore	"B"	"C"
La Serena	"E"	sheers
Latitude	"B"	"C"
Library Complements - all designs	"C"	"C"
Lucidity	"D"	sheers
Merida	"D"	"D"
Osomo	"C"	"D"
Parallel - all designs	"C"	"D"
Parallel Vol. II - Lodi	"D"	"D"
Parallel Vol. II - Nuoro	"B"	"D"

Collection/design name	ISO 11654 category draped	ISO 11654 category flat
Posada	"B"	"C"
Puckered Stripes - all designs	"D"	"E"
Rafter	"C"	"D"
Reggio	"A"	"C"
Sandover	"C"	"D"
Sheer Complements - Dinan	"E"	sheers
Sheer Complements - Lorient, Vichy	"D"	"D"
Sheer Formations	"D"	sheers
Sheer Gallery - all designs	"E"	sheers
Sheer Style - Amble, Merseyside	"E"	sheers
Sheer Style - Cranbrook, Banbury, Amesbury, Blythe, Ashford	"E"	sheers
Sheer Surface - all designs	"D"	sheers
Solar Complements - all designs	"C"	"D"
Solar Duet	"C"	"B"
Solar Element	"C"	"D"
Solar Luxury - all designs	"B"	"C"
Solar Portfolio - Ancona, Campobasso, Livorno, Potenza, Teramo	"C"	"D"
Solar Portfolio - Siracusa, Catanzaro, Oristano	"B"	"C"
Solar Suede	"C"	"D"
Solor Remodel - all designs	"C"	"C"
Stately Stripes FR-One - all designs	"B"	"D"
Stonework & Travertine	"C"	"C"
Strokes Of Genius - Da Vinci	"B"	"C"
Strokes Of Genius - Einstein	"A"	"C"
Strokes Of Genius - Hawking	"B"	"D"
Structure - all designs upholstery only	upholstery only	"E"
Studio Complements - Bayonne	"B"	"C"
Studio Complements - Cluny, Colmar, Dijon	"C"	"D"
Synthesis	"C"	"D"
Valdivia	"C"	"D"
Velvet Anthology - all designs	"B"	"C"
Velvet Anthology Vol. II - all designs	"B"	"C"
Velvet Anthology Vol. III - Adorn, Groove, Trace	"B"	"C"
Velvet Anthology Vol. III - Imprint, Logo, Token	"B"	"B"
Velvet Radiance - Montlucon, Riom	"B"	"C"
Vibrant Prints - all designs	"C"	"D"
Vintage Chenille Vol. III	"B"	"C"
Vintage Velour - Dressner, Marsano	"B"	"C"