



LAMEEKOUST® SIGMA:1 and SIGMA:2 SOUND ABSORBENT PANEL SYSTEMS

The LAMEEKOUST SIGMA Panel Systems incorporate a new high performance metallic sound absorptive material which has been developed for use in sound attenuators, and similar acoustic and noise control applications involving higher airflow velocities over the face of the material, where control of fibre migration into a closed environment is important.

Unlike many other base materials used for sound absorption, the Lameekoust Sigma System laminate is manufactured from stainless steel fibres with an integral fused micro-porous structure and a modified ceramic fibre infill which, in the standard form, is designed for use in operating temperatures up to 450°C but which, in a modified form and subject to specific application testing and evaluation, may be used at higher temperatures up to 1200-1500°C.

Not requiring a perforated front panel, the Lameekoust Sigma:1 System is considered to be a further significant advance which, similar to the Lameekoust Delta:1 System, provides material systems with greatly enhanced safety factors suitable for use in restricted spaces such as underground platforms and passageways.

Whilst the Lameekoust Sigma Panel has been tested for acoustic performance, the complete system has not as yet been fire rated but the component materials, apart from the all-metallic facing, have been independently tested (*) as part of the Lameekoust Delta:1 System and shown to comply with BS 476 Part 6 Fire Propagation, with BS 476 Part 7 Class 1 Surface Spread of Flame, with BS 6853:1999 D8.4 Category 1A, and with the London Underground Engineering Standards Toxicity Test. The Lameekoust Sigma:1 Panel System is a cavity mounted configuration and the Sigma:2 is a closed cassette module.

The inherent acoustic performance of the products may be moderated by the mounting arrangement, the Certified (**) Octave Band Sound Absorption Co-efficients, for a typical tunnel lining panel arrangement (Sigma:1), and for cassette panel assemblies (Sigma:2), being as follows:

Octave Band Centre Frequency Hz	125	250	500	1000	2000	4000
α p Cavity - (Σ:1)	0.85	1.00	0.95	1.00	1.00	1.00
α p Cassette - (Σ:2)	0.40	0.85	1.00	1.00	1.00	1.00

(*) Independently tested by the Building Research Establishment (BRE) Garston, UKAS Accredited Testing Laboratory No.0578, Test

Reports Nos. 232992, 232994, 232995, 232996 and Test Evaluation Report 232996A.

(**) Independently tested in accordance with BS EN ISO 354: 2003 and BS EN 11654: 1997 by the Acoustical Investigation and Research Organisation Limited, UKAS Accredited Testing Laboratory No. 0483.

Web: www.lameek.com | Phone: 01438 812812 | Fax: 01438 814224 | Email: lameek.admin@lameek.com