

ASTEX Panel

Sound absorption wall panel

ASTEX Panels are acoustically absorbent, fabric covered panels of a composite construction.

They are available in standard sizes and thicknesses, faced with Wilhams fabric or they can be cut to size and finished with client's chosen fabric.

Advantages

- High quality decorative finish
- Compliments any design concept
- Excellent acoustic and thermal insulation
- Flexible design characteristic
- Resists compression
- Easy to handle, install and clean
- Cost effective sound control
- Fire resistant
- Ready to install on site

Applications

ASTEX Panels provide an effective means of controlling reverberation time and reflected sound in rooms. They are applied in studios, conference centres, cinemas, auditorium and offices where high acoustic absorption, combined with an aesthetically pleasing appearance is required.

Wall panels for industrial applications such as engine enclosures, test cells and workshops are also available.

Physical Information

Thicknesses:	12mm, 25mm and 50mm Other thicknesses are available upon request
Maximum panel size:	2350 x 1200mm Subject to fabric limitations
Weights:	2.19kg/m ² for 12mm panel 4.38kg/m ² for 25mm panel 8.75kg/m ² for 50mm panel The above sizes & weight are nominal figures



KRU Studio, Cyberjaya

Fire Performance

ASTEX Panels conform to the following specifications:

- The panel core is non-combustible to EN 13501-1.
- Wilhams standard fabric complies with BS 476: 1987 to Class 1.
- When faced with the Wilhams standard fabric, ASTEX Panels comply with fire test BS 476 Parts 6 & 7 to give UK Building Regulations Class 'O' performance.

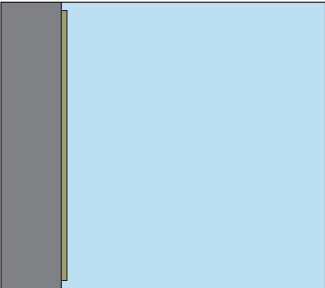
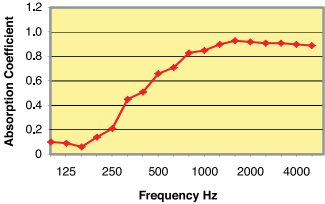
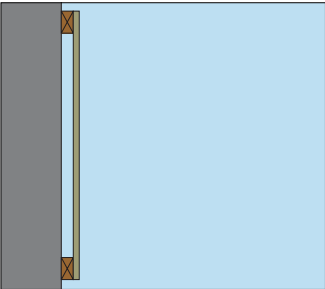
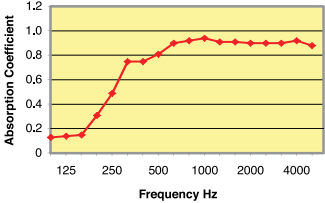
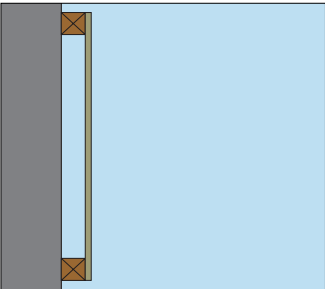
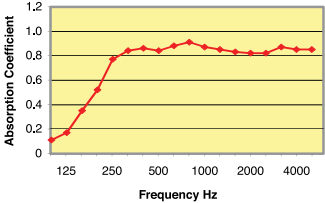
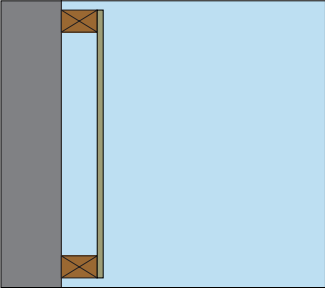
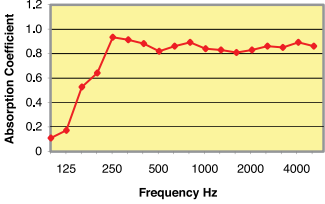
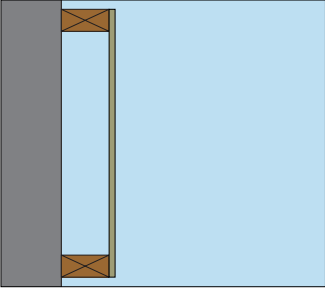
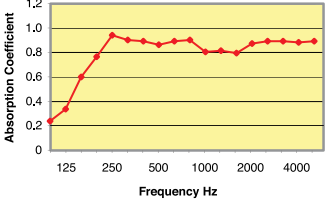
Acoustic Performance

The Noise Reduction Coefficient (NRC) is expressed as a factor between 0.0 and 1.0. The more sound that a material absorbs, the higher the NRC.

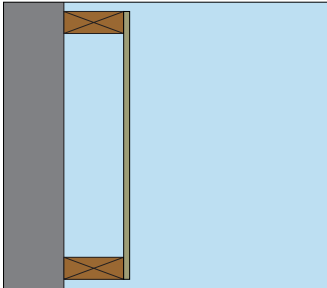
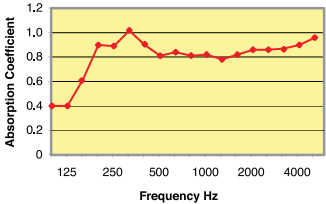
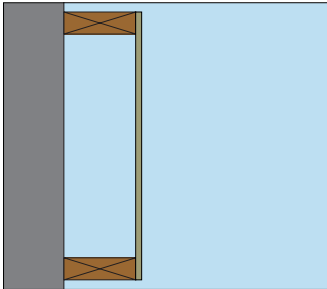
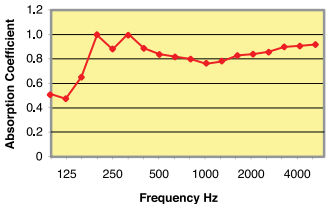
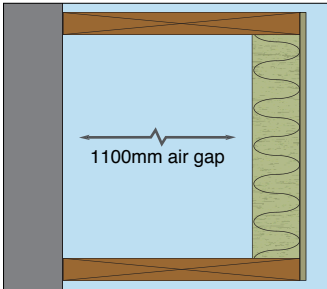
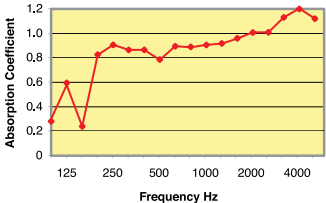
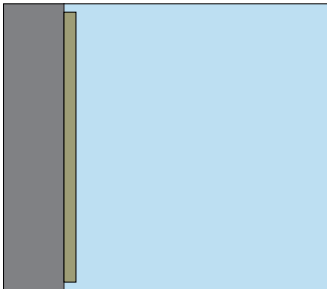
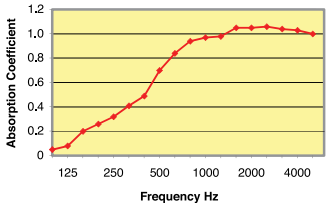
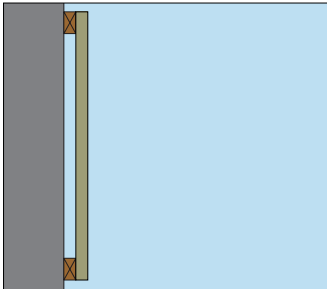
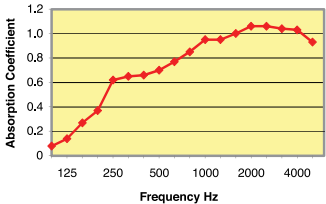
ASTEX Panels work in two distinct ways to reduce noise, by impeding the transmission of sound through an element of the structure and by absorption of sound at the surface.

Please see ASTEX Panels Absorption for NRC and noise absorption graphs for various build-ups.

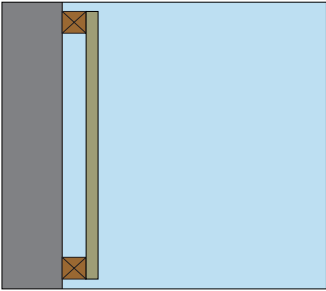
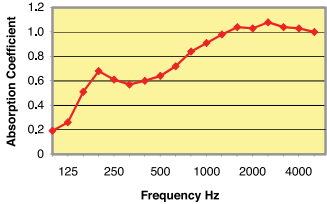
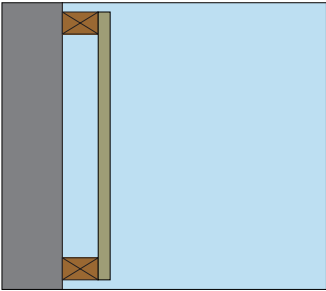
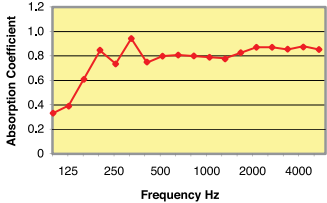
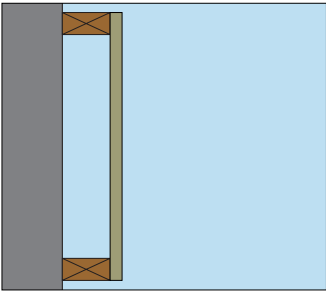
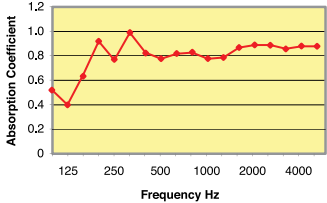
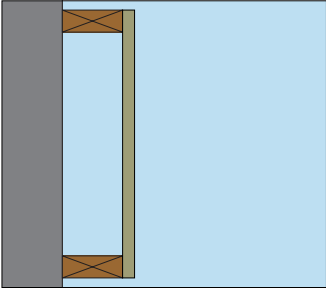
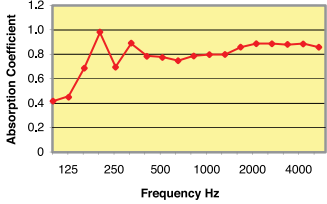
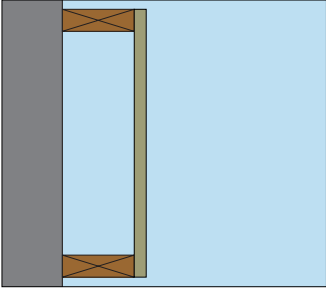
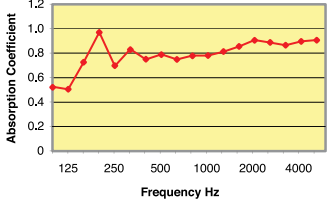
ASTEX Panel Absorption

Wall Structure	Specification	NRC	Test Report Number
Graph			
	12mm ASTEX Panel solid backing	0.55	02WIFE10-TEST 1 
	12mm ASTEX Panel 25mm air gap	0.80	02WIFE10-TEST 4 
	12mm ASTEX Panel 50mm air gap	0.85	02WIFE10-TEST 5 
	12mm ASTEX Panel 75mm air gap	0.85	02WIFE10-TEST 6 
	12mm ASTEX Panel 100mm air gap	0.90	02WIFE10-TEST 7 

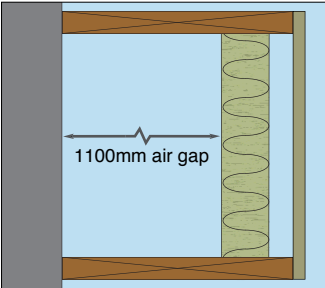
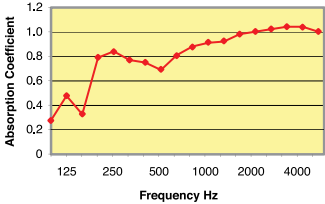
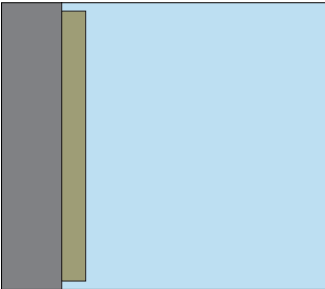
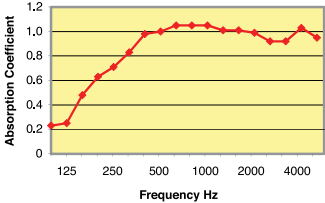
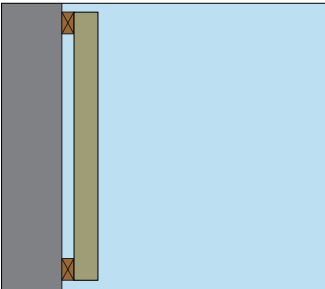
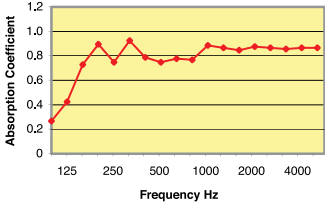
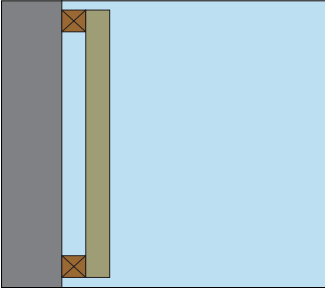
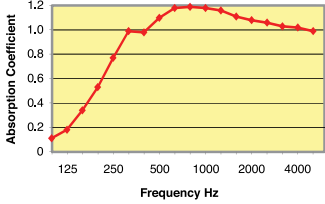
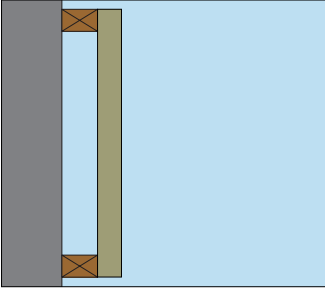
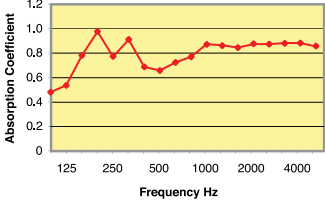
ASTEX Panel Absorption

Wall Structure	Specification	NRC	Test Report Number
Graph			
	12mm ASTEX Panel 125mm air gap	0.85	02WIFE10-TEST 8 
	12mm ASTEX Panel 150mm air gap	0.85	02WIFE10-TEST 9 
	12mm ASTEX Panel 100mm Wilhams Noise Reduction Batt 1100mm air gap	0.90	02WIFE10-TEST 44 
	25mm LD ASTEX Panel solid back	0.85	AIRO L/2200 Test No. 2 
	25mm LD ASTEX Panel 25mm air gap	0.85	AIRO L/2200 Test No. 3 

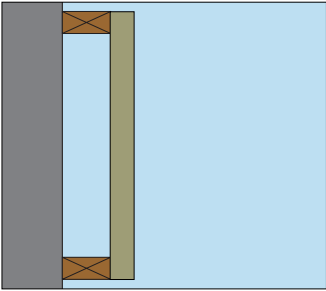
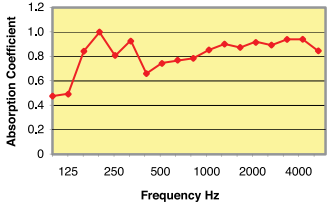
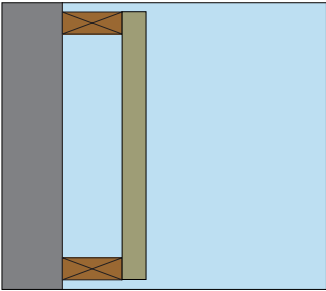
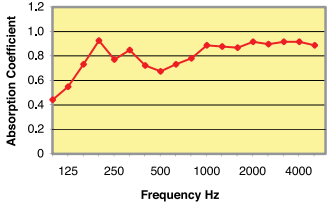
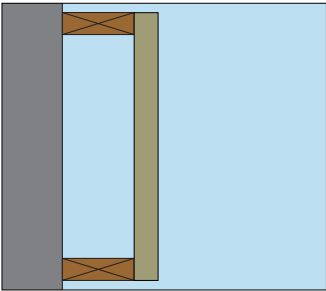
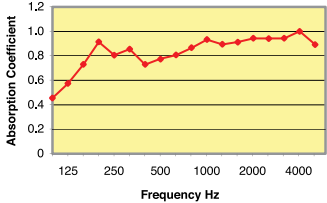
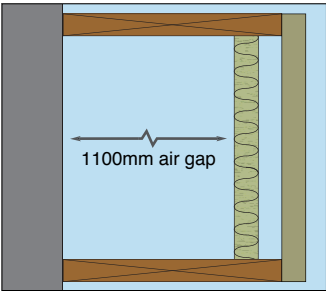
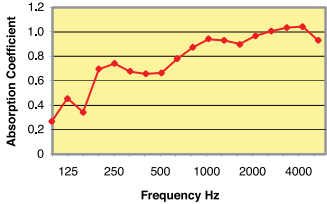
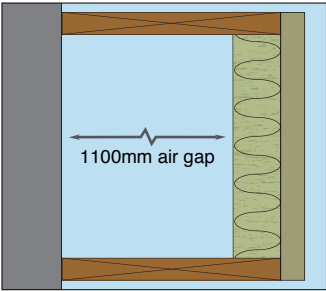
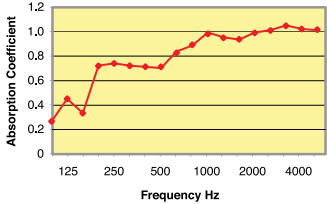
ASTEX Panel Absorption

Wall Structure	Specification	NRC	Test Report Number
Graph			
	25mm LD ASTEX Panel 50mm air gap	0.85	AIRO L/2200 Test No. 4
			
	25mm ASTEX Panel 75mm air gap	0.85	02WIFE10-TEST 13
			
	25mm ASTEX Panel 100mm air gap	0.85	02WIFE10-TEST 12
			
	25mm ASTEX Panel 125mm air gap	0.85	02WIFE10-TEST 11
			
	25mm ASTEX Panel 150mm air gap	0.80	02WIFE10-TEST 10
			

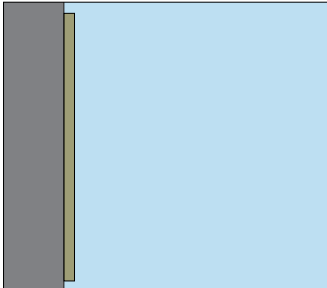
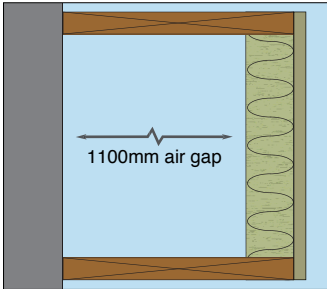
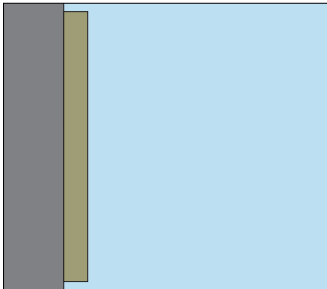
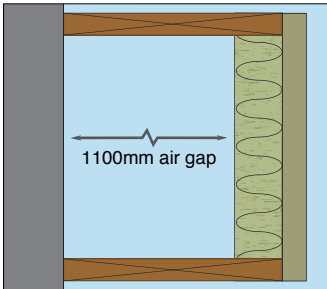
ASTEX Panel Absorption

Wall Structure	Specification	NRC	Test Report Number
Graph			
	25mm ASTEX Panel 50mm air gap 100mm Wilms Noise Reduction Batt 1100mm air gap	0.85	02WIFE10-TEST 43 
	50mm LD ASTEX Panel solid back	0.95	AIRO L/2200 Test No. 5 
	50mm ASTEX Panel 25mm air gap	0.85	02WIFE10-TEST 16 
	50mm ASTEX Panel 50mm air gap	1.00	02WIFE10-TEST 17 
	50mm ASTEX Panel 75mm air gap	0.80	02WIFE10-TEST 18 

ASTEX Panel Absorption

Wall Structure	Specification	NRC	Test Report Number
Graph			
	50mm ASTEX Panel 100mm air gap	0.85	02WIFE10-TEST 19 
	50mm ASTEX Panel 125mm air gap	0.85	02WIFE10-TEST 20 
	50mm ASTEX Panel 150mm air gap	0.85	02WIFE10-TEST 21 
	50mm ASTEX Panel 50mm air gap 50mm Wilhams Noise Reduction Batt 1100mm air gap	0.85	02WIFE10-TEST 42 
	50mm ASTEX Panel 100mm Wilhams Noise Reduction Batt 1100mm air gap	0.90	02WIFE10-TEST 42i 

ASTEX Panel Absorption

Wall Structure	Specification	NRC	Test Report Number
Graph			
	25mm LD ASTEX Panel solid back	0.85	02WIFE10-TEST 41
	25mm LD ASTEX Panel 100mm Wilhams Noise Reduction Batt 1100mm air gap	1.00	02WIFE10-TEST 45
	50mm LD ASTEX Panel solid back	1.00	02WIFE10-TEST 40
	50mm LD ASTEX Panel 100mm Wilhams Noise Reduction Batt 1100mm air gap	1.00	02WIFE10-TEST 46

Installation

The following information is given in good faith, but the method selected must ultimately be the decision of the contractor or responsible tradesman, having regard to the type and condition of the substrate to which the SoundPro® ASTEX Panels are to be installed.

The two most common methods of installation that offer non-visible fixing systems are :

1. Adhesive Bonding To Substrate
2. Velcro Strips

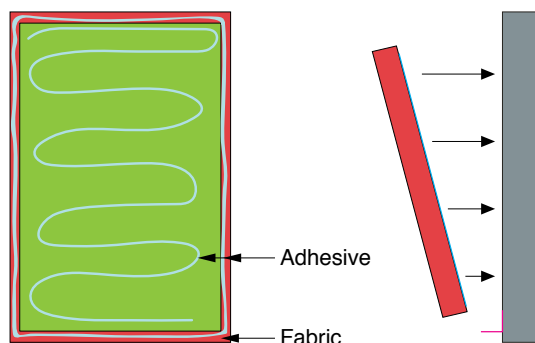
The wall surface should be flat and of sound structure. Alternatively, timber battens can be used to level the walls or create an air gap.

It is important to keep hands clean when working with the panels, or wear gloves to avoid soiling the panel.

Adhesive Bonding To Substrate

The ASTEX Panels when supplied from the factory are ready for installation. The contractor must undertake a sample site test to ensure the ASTEX Panel/Adhesive/Substrate achieves an effective bond prior to full installation of the panels.

1. Measure and mark the area.
2. See Fabric Covered Metal Strips, if used, or prepare suitable support until the adhesive dries.
3. Apply adhesive, in the manner shown below, at the rear of the ASTEX Panel.
4. Offer the ASTEX Panel up to the wall at required position.
5. Support the panel until adhesive dries.



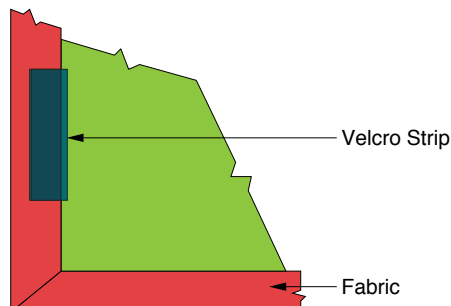
Rear View Detail

Velcro Strips

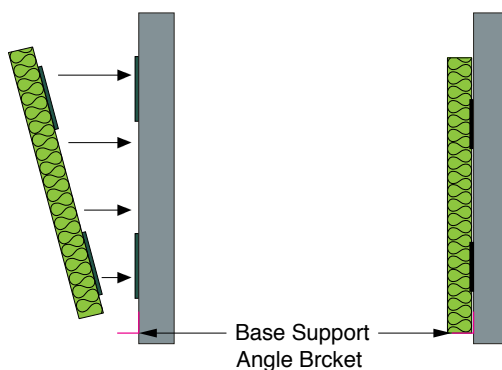
The ASTEX Panels are factory fitted with Velcro Edge Strips and the accompanying Velcro covered base strips are supplied loose for wall mounting. For situations where it is not suitable to screw to the wall surface, self adhesive base strips are available, subject to prior site testing.

1. Fix the base support 'L' brackets to level line on wall set out at suitable spacing to support individual panels.
2. Offer panel up to the wall at required position and lightly pencil around each corner to mark locations. Also mark locations of edge strips at the sides of panels.

3. Fix the Velcro covered strips to the wall at appropriate locations, with the outside edge of the strips approximately 10mm inside actual panel dimension. This ensures that the strips are not visible when panel is in place.
4. Carefully re-align the panel on the wall, resting it on the support brackets using the marking for guidance. Press gently over Velcro areas to ensure a positive engagement.



Rear View Detail



*Fabric not shown for clarity
Side View Panel Fixing

Fabric Covered Metal Strips

The top and bottom 'U' channels are supplied loose with the ASTEX Panels.

1. Align and fix the bottom support 'U' bracket to level line on the wall with fixing screws (supplied by others).
2. Measure out the panel height plus 20mm and position and fix the top 'U' bracket with screw fixings (supplied by others).
3. Offer panel up to the wall at required position and gently guide the top 'U' bracket. Allow the panel to drop into the bottom 'U' bracket.

Maintenance

ASTEX Panels can be cleaned with a vacuum cleaner. Do not use water to clean the panels; however stains can be removed with an appropriate cleaning solution.

SoundPro® is the registered trademark of Wilhams Insulation Far East Sdn Bhd

WILHAMS

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