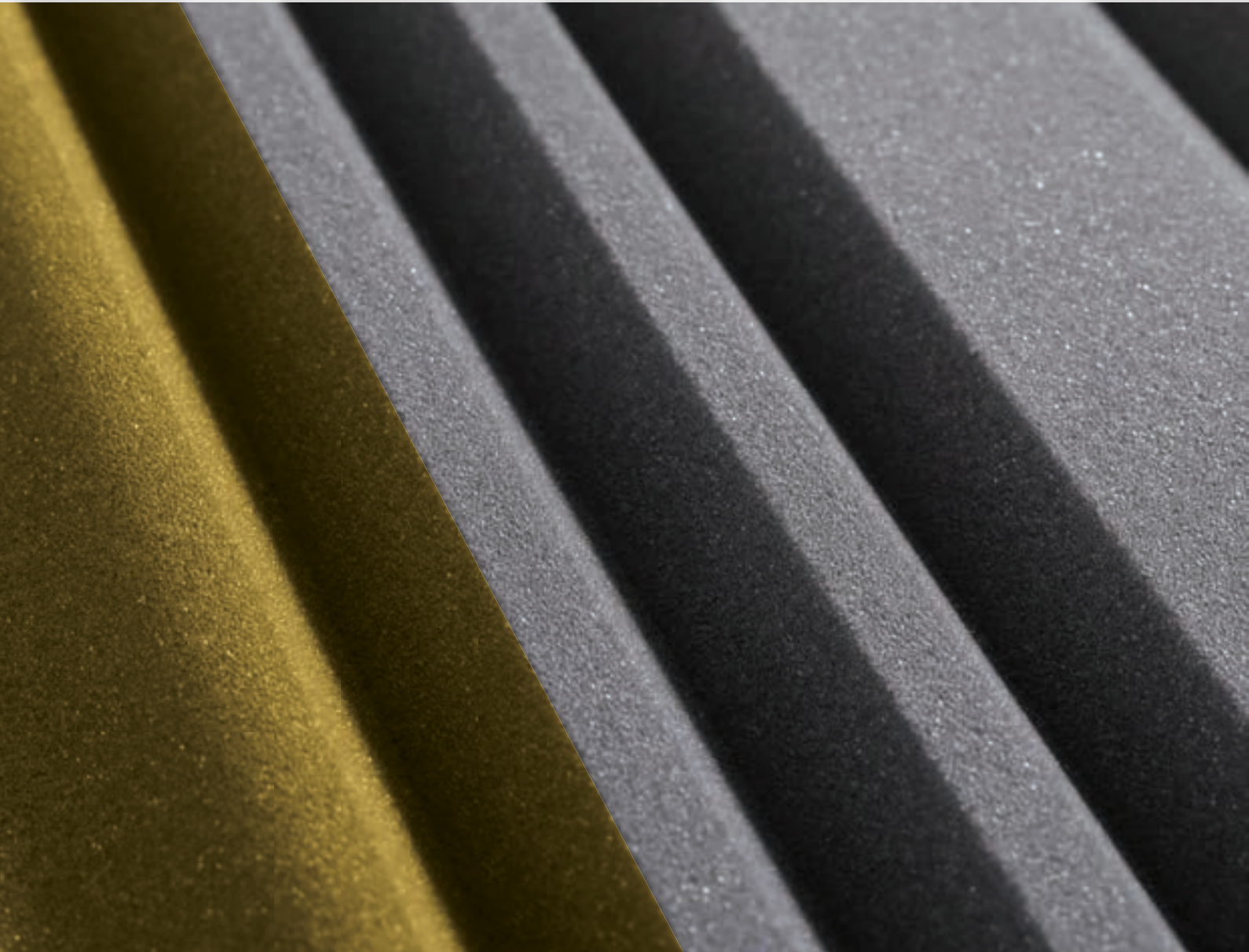


 ***DUNLOP FOAMS***



**Acoustic
Solutions**

The Sound Of Silence

Sound waves are a form of energy. A sound wave can be controlled in three different ways depending on the nature and composition of the surface it hits. It can bounce off a surface - reflected - usually on flat rigid surfaces like walls. Sound waves can be diffused - when they hit a surface like carpet or particular types of foam that send the sound wave in many directions that will decrease its energy. Then you have absorption - where the sound wave meets a surface like high density foam and its energy quickly depletes. Sound is measured in Hz, the number of sound waves per second.

- **Low - medium frequency noise (0-500 Hz)**

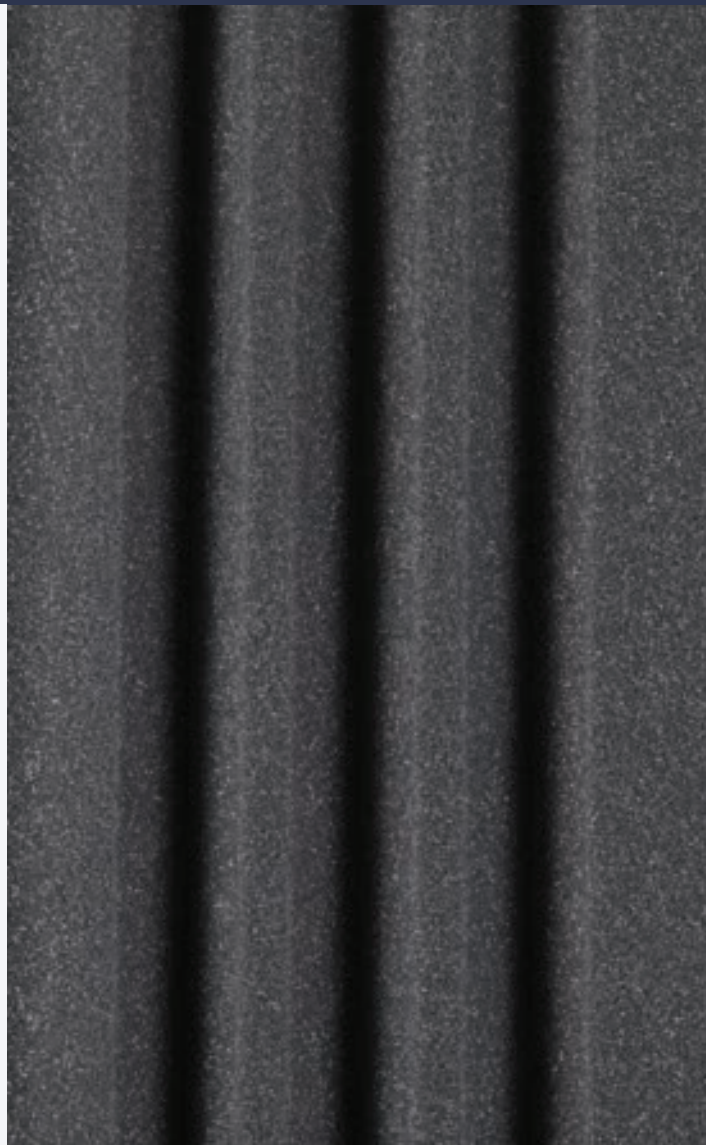
This includes compressors, grinders, crushers, engines, presses & exhaust fans.

- **Mid-range noise (250-2000 Hz)**

Office machinery, circular saws or a human voice.

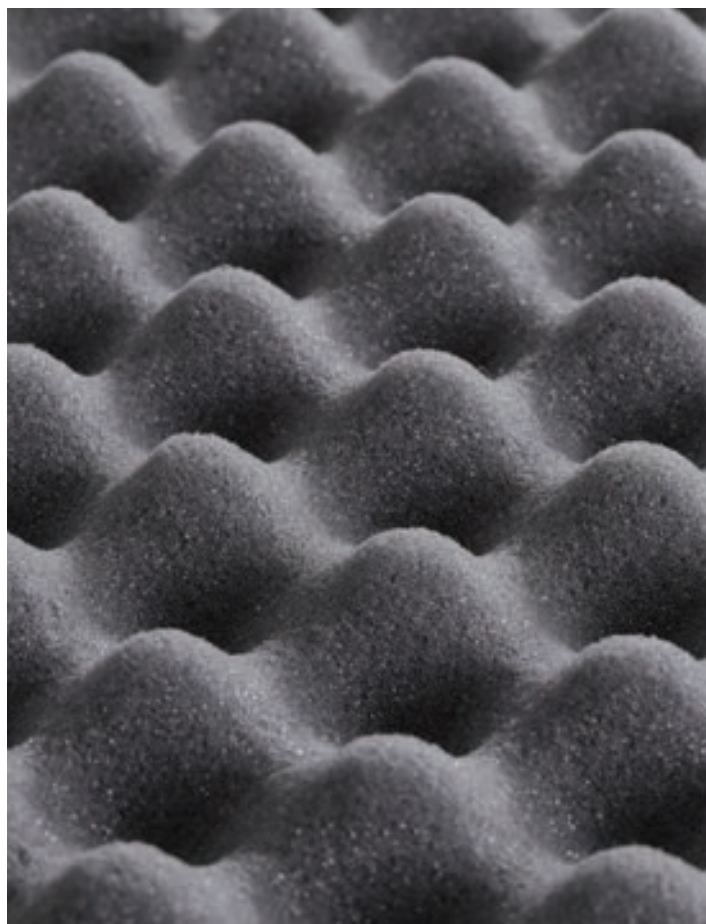
- **High frequency (1000-4000+ Hz)**

Ultrasonic welders, hydraulic pumps, fast small engines, some industrial cutting and polishing processes.



Dunlop Acoustic Foams

We make a comprehensive range of foams that are made to absorb medium - high frequency sounds for use in all types of business and industry from sound recording studios through to industrial factories. Our foam specialists can custom different density foams into different shapes to help lower noise levels of machinery, instruments, computers, offices, sound studios, vehicle interiors and inside heavy machinery cabins. Our acoustic foams are also used to adjust reverberation in areas like lecture rooms, theatres, gymnasiums and restaurants. In these areas, textile fabrics, flocking or vinyl sheeting is added to give the acoustic foam more visual appeal. The foam can also be laminated in metal sheeting to further help with sound absorption.



Dunlop Foams Acoustic Choices

Check out our easy to use table below on the suitable applications that apply to your business or industry to find out which acoustic foam grade to use. Get in touch with us if you don't find your specific application and we'll give you the right solution for the job.

Sound Panels

Application	Foam Grade	PU Foam Type	Colour
<ul style="list-style-type: none"> • Sound proofing insulation panels for home/office/commercial • Music & broadcast recording studios for residential/commercial 	AA21-300	Ether	Charcoal
<ul style="list-style-type: none"> • Entertainment venues including stadiums/concert halls/nightclubs • Pool filter & acoustic boxes for commercial/residential • Indoor firing ranges 	AA29-400	Ether	Charcoal

Flame Retardant Sound Panels

Application	Foam Grade	PU Foam Type	Colour
<ul style="list-style-type: none"> • Building & construction insulation panels for high rise/residential/commercial/halls/places of worship -Industrial wall panels for commercial/offices/hotels • Transport insulation & soundproofing for buses/trains/aircraft/tunnels • Healthcare protective rooms for mental health facilities • Marine insulation & soundproofing for boats/ships • Petrochemical for oil/fuel/gas production facilities 	ST35-200	Flame Retarded Ether	Grey

Improved Flame Retarded Sound Panels

Our highest grade of fire retardant acoustic foam available.

Application	Foam Grade	PU Foam Type	Colour
<ul style="list-style-type: none"> • Building & construction insulation panels for high rise/residential/commercial/halls/places of worship • Industrial wall panels for commercial/offices/hotels • Transport insulation & soundproofing for buses/trains/aircraft/tunnels • Healthcare protective rooms for mental health facilities • Marine insulation & soundproofing for boats/ships • Petrochemical for oil/fuel/gas production facilities 	EN40-230	Flame Retarded Ether	Deep Gold

All references to the properties of the products listed are typical property values and not specifications. The information is given in good faith and to the best of our knowledge. No warranty of whatever nature is given or implied.

Acoustic Foam Test Data

Sound Absorption

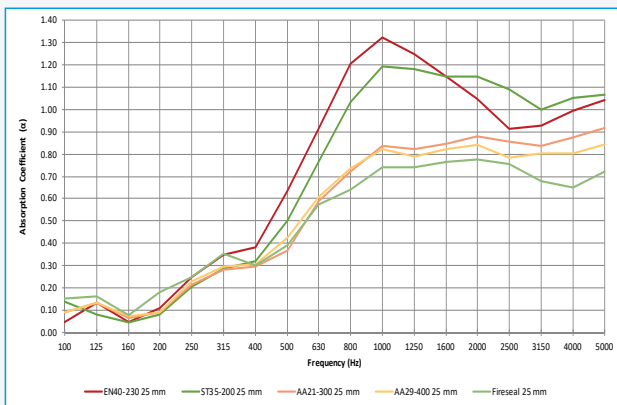
We have sound absorption tests* across a range of frequencies for Dunlop Acoustic Foams in:

- 25mm sheet
- 50mm convoluted sheets

The test data is across 12mm,25mm and 50mm sheets that were measured by Dunlop Foams using techniques based on the impedance tube method as per AS/NZS 1935.1:1988. Test data for 50mm convoluted sheet is taken from samples using the reverberation room method as per AS 1045-1988.

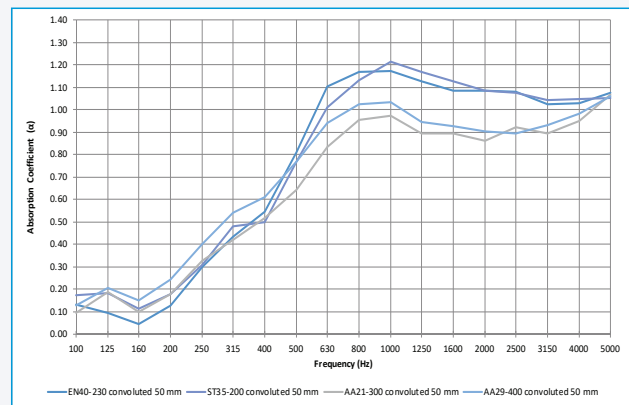
Sound Absorption Coefficient

25mm Sheet



Sound Absorption Coefficient

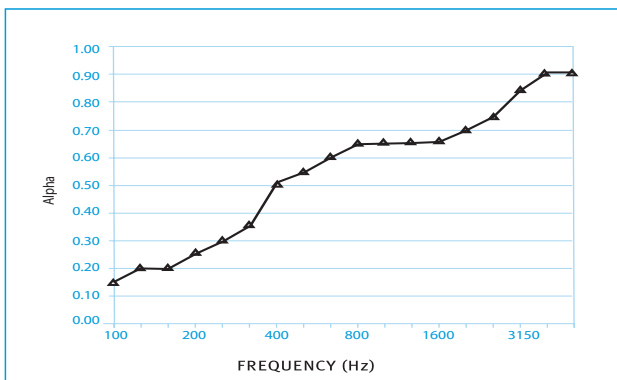
50mm Convoluted Sheet



*Testing was done at independent testing laboratory in accordance with AS ISO 354-2003.

Foam Thickness

The effect of thicker foam on improving sound absorptions means a higher Noise Reduction Coefficient(NRC). This is shown in the following table. NRC is the average of the Sound Absorption Coefficients measured at 250Hz, 500Hz, 1000Hz and 2000Hz.



Fire Retardancy

We've added additives in some of our Dunlop Acoustic Foams to boost resistance to fire ignition and spread of smoke or flame. See which foams contain flame retardant properties* in the table.

Foam Grade	PU Foam Rating	Flame Retardant Properties
ST32-200	Source 2	Yes
EN40-320	Source 5	Yes
Fireseal	Source 7	Yes

*Dunlop Foams test results don't assess the fire hazard of the material or the product made from this material under actual fire conditions. Foam materials should be kept away from sparks, a smoker's open flame and excessive heat. Smoking should be forbidden in areas where foam materials are stored or processed.