

Acoustical Composite Sheet (ACS)

Acoustical Composite Sheet (ACS) is proprietary, special-purpose rubber material manufactured in sheet form – developed primarily for sound door OEM use as acoustical core to improve STC ratings. This lead-free, densely filled polyurethane rubber effectively blocks sound transmission while minimizing sound vibrations in the door itself for superior STC performance, without the weight and cost of conventional solid-lead acoustical linings.

Call our engineering department to discuss possible applications for your sound door program.

LEGACY ENGINEERING

Local: +1 (718) 292-5333

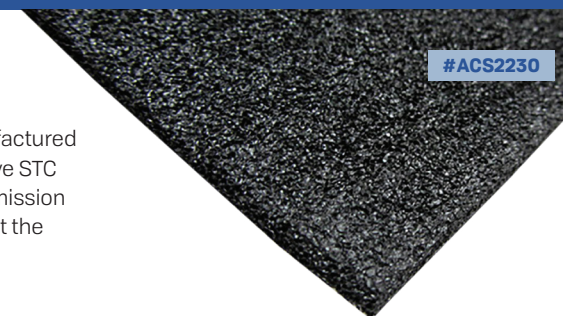
Toll Free: +1 (888) 383-3330

Its non-toxic, inert properties also make ACS suitable for a range of additional OEM applications, which we are available to discuss for possible collaboration.

MATERIALS / SPECIFICATIONS:

- Densely filled, solid pigmented, polyurethane rubber noise barrier providing both sound-absorbing and sound-deadening properties.
- Uses 100% natural fiber found in volcanic rocks.
- Non-toxic, inert and non-carcinogenic – no toxic reactions with air or water.
- Non-combustible and non-explosive with a high melting point and low smoke index – safe for use in most fire-rated applications.
- Biodegradable with a low carbon footprint.
- Frequently used in CLMD (constrained layer mass damping) applications, such as sound walls.
- Mold-resistant and mildew-resistant, and washable when used in exposed areas, such as restaurants, public spaces, temporary applications, hanging baffles, etc.

	¼" Thick	½" Thick
	#ACS250X12	#ACS125X12
STC Rating	28	24
Deficiencies	23	32
OITC Rating	24	19



Sound Transmission Coefficients

Frequency	STC - ¼"	STC - ½"
125 Hz	18 db	14 db
250 Hz	20 db	15 db
500 Hz	25 db	20 db
1000 Hz	28 db	23 db
2000 Hz	32 db	37 db
4000 Hz	37 db	33 db
Sound Transmission Class:	28	24

Physical Properties		#ACS250X12	#ACS125X12
Tensile Strength:	(Per ASTM D412-64)	375 lb/sq. in.	105.32 lb./sq. in.
Elongation:	(Per ASTM D412-64)	113.2%	160%
Tear Strength:	(Per ASTM D1004-66)	6.09 lb./in.	6.09 lb./in.
Weight/ft. ²:		1.337 lb./sq. ft.	0.7106 lb./sq. ft.
Thickness:		Approximately 0.250"	Approximately 0.125"
Cold Crack:	(32°F)	No crack when bent over 1" mandrel	No crack when bent over 1" mandrel
Flammability:		Passes MVSS #302	Passes MVSS #302
		UL94-SE "O"	UL94-SE "O"
		Classified as SE (Self Extinguishing)	Classified as SE (Self Extinguishing)
		No burn rate	No burn rate
Recommended Service Temperature:		40°F - 140°F	40°F - 140°F
Notes:		May be doubled for improved isolation	May be doubled for improved isolation
		Resistant to oil, grease, & solvent	Resistant to oil, grease, & solvent

These results apply only to our test sample. Legacy will assist in developing samples and protocols for testing other materials on request.