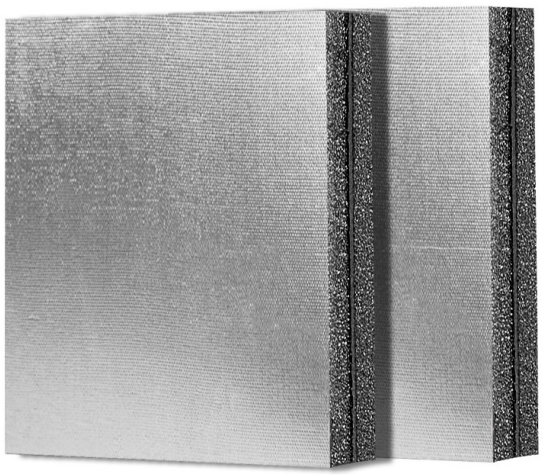
SORBERBARRIER AGC

high-performance sound absorber-noise barrier with a fire-resistant facing



Sorberbarrier AGC combines the superior soundproofing performance of the flexible mass loaded vinyl, Wavebar, and Pyrotek's Sorberfoam with a fire-resistant aluminium glass cloth facing (AGC). The product is designed to reduce unwanted sound in applications with fire safety requirements.

Sorberbarrier AGC's acoustic performance is achieved by placing the mass barrier between two layers of absorbing foam. It keeps the noise barrier separate from the structure it is bonded to, allowing for flexibility to reflect and absorb the transmission of sound.

The durable AGC facing offers protection from mechanical stress, dirt, oil and liquid ingress. As it is flame retardant, the facing can enhance the overall fire and thermal insulation performance of the product.

Tests have revealed that increasing the thickness of the foam separating the barrier improves the product's performance in some frequencies without affecting the overall weight. The combination of these properties allows Sorberbarrier to target a broad range of frequencies, making it one of the most versatile acoustic solutions in the market place.

Sorberbarrier AGC is one of the available products in the range to meet custom design requirements. Other options include plain (Sorberbarrier), metallised polyester (Sorberbarrier M), polyurethane film (Sorberbarrier PU) and perforated vinyl (Sorberbarrier V).

VOC, ODP, HEALTH AND SAFETY

Sorberbarrier AGC is non-toxic and safe to handle by methods prescribed in the Safety Data Sheet. No ozone depleting substances are used during the manufacture of Sorberbarrier AGC.

SPECIFICATIONS

Colour	Silver (AGC facing) Dark grey/black (foam)
Available	Sheet size: 1.3 x 1 m Available in 20, 25, 32, 50 and 75 mm thickness
	Custom sizes, colours and/or thicknesses available depending on MOQ

applications

- Engine rooms in boats under CE Marine Survey
- Acoustic and thermal insulation for air conditioning ductwork
- Acoustic insulation for plenum areas
- Power generation units and containerised generator sets
- Machinery and equipment enclosures
- Car, boat, truck and bus engine compartment, firewall and bonnets

features

- Multifunction product: an absorber and barrier in one
- Fire-resistant facing to meet safety requirements
- AGC facing protects the foam from mechanical stress, dirt, oil and liquid ingress
- No ozone-depleting substances generated during manufacture
- Free from formaldehyde, phenolic resins and irritating fibres
- Engineered to resist degradation (foam rot) more than traditional acoustic foam
- Low spread of flame surface
- Quick and easily installed in awkward places
- Easy to cut, adhere or mechanically fasten into position
- Matching self-adhesive tape or sprayable coating for sealing joints and edges of the foam
- Can be constructed with other absorption products such as Sorbermel (See Sorberbarrier ML range technical data sheets)

PRODUCT SPECIFICATION

Product	Total thickness	Construction Absorptive layer (mm)/Mass barrier (kg)/ decoupler (mm)	Sheet size[1]	Thermal conductivity[2] (K)	Operating temperature range
Sorberbarrier AGC20/4.5	20 mm	AGC12/4.5/06	1.3 x 1.0 m and 1.3 x 2.2 m	0.033 W/mK	-40 to100 °C (Continuous) -40 to 120 °C (Intermittent)
Sorberbarrier AGC25/4.5	25 mm	AGC12/4.5/12	1.3 x 1.0 m and 1.3 x 2.2 m		
Sorberbarrier AGC32/4.5	32 mm	AGC25/4.5/06	1.3 x 1.0 m and 1.3 x 2.2 m		
Sorberbarrier AGC32/8.0	32 mm	AGC25/8.0/06	1.3 x 1.0 m		
Sorberbarrier AGC50/4.5	50 mm	AGC25/4.5/25	1.3 x 1.0 m and 1.3 x 2.2 m		
Sorberbarrier AGC50/8.0	50 mm	AGC25/8.0/25	1.3 x 1.0 m		
Sorberbarrier AGC75/4.5	75 mm	AGC50/4.5/25	1.3 x 1.0 m		
Sorberbarrier AGC75/8.0	75 mm	AGC50/8.0/25	1.3 x 1.0 m		

Tolerances: Length: ±1%, Width: -0/+5 mm, Thickness: ±3 mm, Weight: ±10%

[1]Useable width is specified. Some surface coverings such as foils, films or fabric may overhang the useable width. Please consult your sales representative as minimum order quantities may apply.

[2]Typical value for Polyurethane foam - Polyurethane handbook: Chemistry, Raw Materials, Processing, Application, Properties 2nd edition

All the above products are available with pressure-sensitive adhesive backing. Under extreme temperature conditions or where the substrate surfaces cannot be free from contaminants, mechanical fixing will be required on vertical surfaces. For all inverted installations, including ceiling installations, mechanical fixing must be done in addition to PSA adhesion. Please consult your local Pyrotek representative for more information.

MATERIAL PROPERTIES

Test method	Property	Report no.	Results
BS EN ISO 4589.2: 1999	Determination of the burning behaviour of plastics by oxygen index at ambient temperature.	360498	23.30%
BS EN ISO 4589.3: 1996	Determination of the burning behaviour of plastics by oxygen index at an elevated temperature of 60 °C.	360499	23.20%
EN ISO 9094-1: 2003	Classification / Compliance	360499 (A)	Complies to Directive 94/25/EC. Material suitable for use as insulation of engine space in recreational maritime craft
ASTM E 162	Surface flammability	101869004MID-001	Complies for US (FRA) Federal railroad administration requirements and requirements of NFPA 130 and Complies for US (DOT) Department of transportation for acoustic insulation of transit bus and vans (Docket 90 A)
ASTM E 662	Optical Density of Smoke Generated	102057878MID-004	
ASTM E 800 (SMP-800C)	Gases present or generated during Fires	101869004MID-003	
UL 94*	Flammability of plastic materials	13513JY7	HF-1
FMVSS 302*	Flammability of interior materials	14713JY1	Complies to the requirements of US (DOT) Department of transportation for occupant compartments of motor vehicles

**Result applies to plain foam only.*

ACOUSTIC PERFORMANCE (ABSORPTIVE LAYER)

Frequency (Hz)	12 mm	25 mm	50 mm
100	0.02	0.06	0.20
125	0.02	0.08	0.37
160	0.04	0.14	0.53
200	0.06	0.23	0.89
250	0.11	0.49	0.91
315	0.15	0.82	0.62
400	0.25	0.91	0.49
500	0.42	0.71	0.45
630	0.78	0.55	0.43
800	0.88	0.48	0.46
1000	0.58	0.46	0.65
1250	0.36	0.50	0.73
1600	0.28	0.59	0.42
2000	0.29	0.63	0.36
2500	0.41	0.60	0.50
3150	0.57	0.46	0.50
4000	0.60	0.39	0.40
5000	0.35	0.37	0.38
NRC	0.35	0.55	0.60
SAA	0.38	0.58	0.58
α_w	0.35 (MH)	0.55	0.50 (L)

Tested to ISO 354:2003 at University of Canterbury, New Zealand
Report Numbers: 280, 279 & 278

ACOUSTIC PERFORMANCE (BARRIER LAYER)

Frequency (Hz)	4.5 kg/m^2	8 kg/m^2
100	15	19
125	14	16
160	15	17
200	15	19
250	17	21
315	19	22
400	21	24
500	22	25
630	23	27
800	25	28
1000	27	30
1250	29	32
1600	31	34
2000	33	36
2500	34	37
3150	35	38
4000	37	40
5000	39	42
R_w	26	30
STC	26	30

Tested to ASTM E90-09 at Riverbank Acoustical Laboratories, USA
Report Numbers: TL18-642 & TL18-643