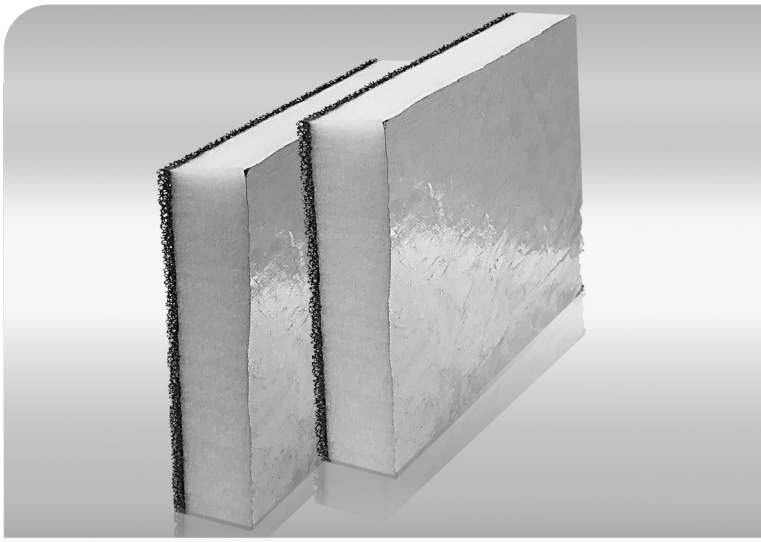
SORBERPOLY 2D AGC/DR

Lightweight acoustic insulation with open cell decoupler



Sorberpoly 2D AGC/DR is a combination of Pyrotek's lightweight Sorberpoly 2D AGC acoustic insulation with an open cell decoupling layer to allow for drainage of condensation. The product has been engineered to prevent liquid from accumulating in the acoustic absorption material which can lead to a reduction of thermal properties of the insulation. Furthermore, trapped water can lead to accelerated corrosion and shorter life of components.

Laminated with aluminium glass cloth (AGC), Sorberpoly 2D AGC/DR not only complies to automotive standards but also satisfies the highest requirement of EN 45545-2 for rail. It acts as a radiant barrier and further provides protection to the insulation from mechanical stress, dirt, oil and liquid ingress.

Sorberpoly 2D AGC/DR is a low irritant product due to the properties of Sorberpoly 2D and is much easier for operators to use compared to fibreglass or mineral wool alternatives. The product is easy to install and can be used in cavity structures on walls or floors of rail vehicles.

VOC, ODP, HEALTH AND SAFETY

Sorberpoly 2D AGC/DR is non-toxic and safe to handle by methods prescribed in Safety datasheet. No Ozone depleting substances are used during the manufacture of Sorberpoly 2D AGC/DR.

SPECIFICATIONS

Colour	Black (flexible decoupling layer) White (insulation) with silver facing
Available	Various sizes available (Depending on MOQ) Total thickness: 35 and 60 mm (1.4 to 2.4 in) *Also available: 6 to 100 mm thick (0.2 to 3.9 in)*
	Custom kit options also available

applications

- Wall and floors of rail vehicles
- Machinery and equipment enclosures where condensation drainage is required

features

- Lightweight, with high sound absorption properties
- The flexible decoupling layer prevents condensation soaking into the absorber material and formation of stagnant moisture
- Will not degrade, crumble or smell over time
- Non-wicking and hydrophobic - avoids contamination and generation of odours
- Non-toxic, will not irritate the skin when handled
- Easy to cut and install
- Available in various sizes and thicknesses

PRODUCT SPECIFICATIONS (SORBERPOLY 2D)

Polyester thickness	Total thickness	Width[1]	Density[2]	Operating temperature range[3]
25 mm (1 in)	35 mm (1.4 in)	1.4 m (4.6 ft)	18, 24 & 32 kg/m3 (1.12, 1.5 & 2 lb/ft3)	-50 to +90 °C (-58 to 194 °F) Continuous -50 to +130 °C (-58 to 266 °F) Intermittent
50 mm (2 in)	60 mm (2.4 in)			

Tolerance: Thickness ± 2 mm (0.08 in); Density: ± 5%. [1]Useable width : Some surface coverings may overhang the useable width. [2]For plain polyester only. [3]Higher temperatures can be suitable depending on the application. Other densities and thicknesses available with varying rolls and sheet dimensions. All 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.

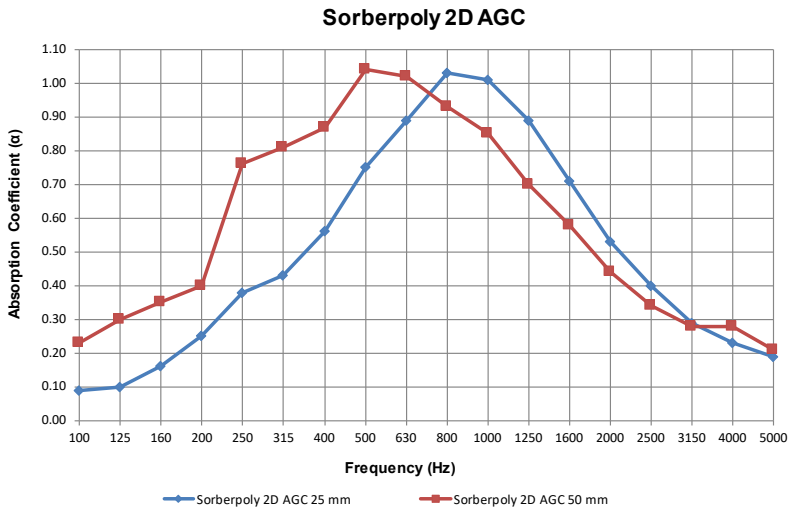
MATERIAL PROPERTIES

Test method	Property	Report no.	Results
EN 45545-2 (ISO 5658-2)	Spread of flame	800-801-802-803.1IS0040/19	R1 (HL1, HL2, HL3)
EN 45545-2 (ISO 5660-1: 50 kWm^{-2})	Heat release rate by cone calorimeter		
EN 45545-2 (ISO 5659-2: 50 kWm^{-2})	Smoke generation (optical density)		
ASTM C518*	Thermal conductivity	DI0567/DU01	0.036 W/mK
BS 6853:1999*	Toxicity testing	2974/R1	R= 0.037

**Results for Sorberpoly 2D*

ACOUSTIC PERFORMANCE

Frequency (Hz)	25 mm	50 mm
100	0.09	0.23
125	0.10	0.30
160	0.16	0.35
200	0.25	0.40
250	0.38	0.76
315	0.43	0.81
400	0.56	0.87
500	0.75	1.04
630	0.89	1.02
800	1.03	0.93
1000	1.01	0.85
1250	0.89	0.70
1600	0.71	0.58
2000	0.53	0.44
2500	0.40	0.34
3150	0.29	0.28
4000	0.23	0.28
5000	0.19	0.21
NRC	0.65	0.75
SAA	0.65	0.73
α_w	0.45 (M)	0.45 (LM)



Tested to ISO 354:2003 at University of Canterbury, New Zealand
Report Number: 303 & 304
Acoustic results are based on 32 kg/m³ density material.

Caveats: Specifications are subject to change without notice. The data in this document is typical of average values based on tests by independent laboratories or by the manufacturer and are indicative only. Materials must be tested under intended service conditions to determine their suitability for purpose. The conclusions drawn from acoustic test results are as interpreted by qualified independent testing authorities. Nothing here releases the purchaser/user from responsibility to determine the suitability of the product for their project needs. Always seek the opinion of your acoustic, mechanical and fire engineer on data presented by the manufacturer. Due to the wide variety of individual projects, Pyrotek is not responsible for differing outcomes from using their products. Pyrotek disclaims any liability for damages or consequential loss as a result of reliance solely on the information presented. No warranty is made that the use of this information or of the products, processes or equipment to which this Information Page refers will not infringe any third party's patents or rights. DISCLAIMER: This document is covered by Pyrotek standard Disclaimer, Warranty and © Copyright clauses. See pyroteknc.com/disclaimer.