

Synth PF

POLYFIBRE INSULATION

www.anutone.com/synthpf.htm



Synth PF

Introduction

For many years polyester fibres have been used in quilts, sleeping bags, outdoor clothing as a barrier against cold and tested in the toughest of conditions like polar ice caps. Polyester is proven to be a natural cover in keeping cold out and warmth in besides providing superlative acoustic insulation.

Anutone Interiors brings the same technology to buildings with Synth PF polyester insulation blankets.

Attributes

Synth PF is thermally-bonded, chemically-free polyester-fibre blanket roll. No additives or resins are used. It is an eco-friendly, lightweight, thermacoustic performance enhancer that works quietly and safely, behind the scenes!

Synth PF is made to exacting specifications under strict quality control and ongoing research, with continuous testing ensuring consistent quality and delivery!

Applications

Synth PF works as a thermacoustic lining for ceilings, panellings, partitions and floor cavity applications. The facing material may be a rigid panel or stretched fabric. Synth PF is also used as a thermacoustic infill for louvres, attenuators and HVAC ducting.

It finds usage in commercial buildings, industrial applications and domestic housing. Wherever and whenever you need thermacoustic insulation you need Synth PF!

Aesthetics

Synth PF is a core product that receives a facing material on installation. Hence, aesthetic considerations are not important but the product is almost pure white, pleasant to look and feel.

Design Considerations

Synth PF is a self-supporting core installation. If installed on ceilings where the facing material is stretched fabric, sagging may occur due to self-weight unless anchored by wiremesh.

Logistics

Variant	Density kg/m ³	Length m	Width m	Area m ²	Roll wt* kgs
5 x 10	50	15	0.6	9	4.5
5 x 25	20	15	0.6	9	4.5
5 x 50	10	15	0.6	9	4.5
10 x 10	100	15	0.6	9	9.0
10 x 25	40	15	0.6	9	9.0
10 x 50	20	15	0.6	9	9.0
15 x 25	60	15	0.6	9	13.5
15 x 50	30	15	0.6	9	13.5

*Roll weight is approximate



Features

- Rolls of 600mm width and 15m length - easy handling
- Surface Densities 500, 1000, 1500gsm
- Thicknesses 10mm, 25mm, 50mm
- Other widths, densities and thicknesses on request
- Non-toxic, non-allergic, non-irritant, odourless
- No protective measures required for installation
- Lightweight and easy to install
- Dimensionally stable ensuring thermacoustic value for life
- Readily available - large quantities with short lead times

Performance

- Composition – Organic, long chain synthetic polymer
- Long chain of Carbon-Hydrogen-Oxygen
- Non-corrosive – pH 7.8
- Thermal Conductivity (k value) 0.04 W/m°C
- Fire Resistance – see under 'Flammability', next page
- Temperature resistance - 150°C
- Resistant to insect and rodent attack
- Resistant to bacterial, fungi or any bio attack
- Moisture-resistant – regains properties on drying

Environment

Synth PF is made from recycled polyester fibres and fully recyclable. The use of Synth PF conserves energy in buildings resulting in lower heating / airconditioning costs. This earns LEED credits under the Green Building programme.

Warranty

Synth PF comes with 5 years limited warranty when installed and maintained to manufacturer's specifications.

Site Considerations

Surfaces must be devoid of moisture prior to installation of Synth PF. Prior to use, pack should be opened to allow decompression and return to original density. However, thermacoustic performance is not affected by less thickness as recovery of density is achieved gradually insitu. 100mm gap must be left around ceiling lights, exhaust fans and heating pipes. Ceiling and wall vents must not be covered. Electrical wiring should preferably be placed above Synth PF.

Flammability

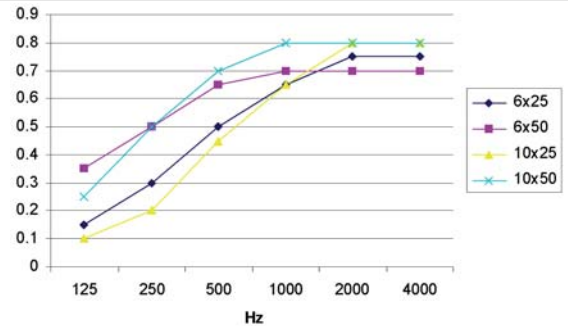
<p>Vertical Flammability as per BS-3119 Void Char length - 68mm After flame (secs.) - Nil After glow (secs.) - Nil</p>	<p>Horizontal Flammability as per IS:15061 For all specimens the flame extinguishes before reaching the marking of 1.5 inch from the open end of the specimen. Hence burn rate 0 mm/min.</p>	<p>Limiting Oxygen Index as per Stanton Redcroft Machine - 29.3</p> <p><i>Note: All tests in July 2008 by BTRA Test Laboratories, Mumbai</i></p>
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Acoustics

Sound Absorption

Model	Hz	125	250	500	1000	2000	4000	NRC
5x25		0.15	0.30	0.50	0.65	0.75	0.75	0.55
5x50		0.35	0.50	0.65	0.70	0.70	0.70	0.64
10x25		0.10	0.20	0.45	0.65	0.80	0.80	0.53
10x50		0.25	0.50	0.70	0.80	0.80	0.80	0.70

All tests with A-mounting as per ISO 354

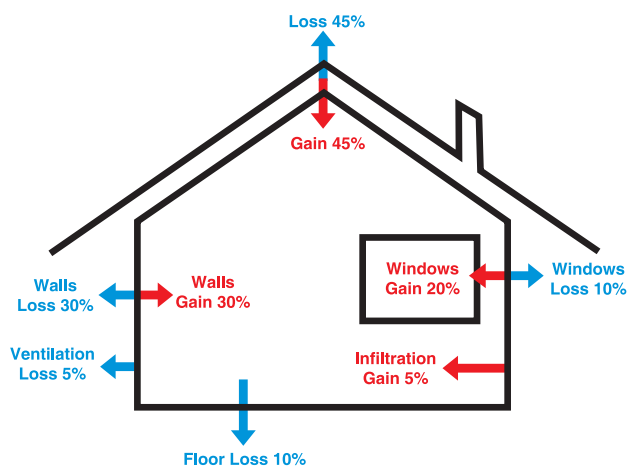


Installation



Cool Summers, Warm Winters

Synth PF can reduce **heat gain in summer** and **heat loss in winter** by upto 60 per cent in a building. The illustration below depicts a building without insulation.



Specifications

Design, Supply, Build of Synth PF, as per approved drawings, supplied by Anutone Interiors, a division of Anutone Acoustics Limited. The surface is made ready and Strut or Studd framework installed at 600mm centres to receive the Synth PF rolls that are friction-fitted and adhered with Stick S7. Cut pieces of Synth PF can be 'poked' with stick into filling cavity gaps. The facing material is anchored to the framework with mechanical fasteners. The facing material may be rigid panel like Mat or stretched fabric like Stretch as per architect requirements.

Custom Methodology

The use of Synth PF in cavity constructions can be custom-designed by Anutone Interiors to suit specific or special project requirements. The methodology includes - design optimisation, surface material characteristics, solutions engineering, cavity integration, system testing and validation.

References

Office

ABG Motors	Bengaluru
Accenture	Bengaluru
Acquia	Bengaluru
ANZ	Bengaluru
Atria	Bengaluru
Cisco	Bengaluru
Coffee Day	Bengaluru
Elcicon	Bengaluru
GE Money	Bengaluru
HSBC	Bengaluru
IBM	Bengaluru
Infosys	Bengaluru
Intel	Bengaluru
ISRO	Bengaluru
Microland	Bengaluru
Mindtree	Bengaluru
Nokia Prestige	Bengaluru
Novell	Bengaluru
Oracle	Bengaluru
RelianceRetail	Bengaluru
Satyam	Bengaluru
Synopsys	Bengaluru
Target	Bengaluru
TCS	Bengaluru
Shyam Telelink	Cochin
Computer Associates	Hyderabad
DRDO	Hyderabad
Microsoft	Hyderabad
Reliance Industries	Kakinada
EMRI	Secunderabad
Hindustan Unilever	Mumbai
K Raheja - BKC	Mumbai
Pfizer	Mumbai
Reliance Industries	Mumbai
MTNL	Navi Mumbai
Siemens	Navi Mumbai
Kirloskar Brothers	Pune
Nokia	Pune
Reliance	Pune
Thermax	Pune
Sahara Township	Pune
ACC	Thane
CDRI	Lucknow
Deepali	New Delhi
Havells	Noida

Auditorium

Engineering College Audi	Chennai
IIT	Chennai
Jipmer Auditorium	Chennai
ISRO	Kochi
Auditorium	Mangalore
MS University	Thirunelveli
Goa State Museum	Goa
Supreme Court	New Delhi
Gaiety	Sikkim
Silchar Municipal Corporation	Guwahati

Cinema

Fame Prestige Value Mall	Bengaluru
Fame Shankar Nag	Bengaluru
Brighton	Chennai
Ega	Chennai
PSNA Mahal	Dindigul
Prathima	Karimnagar
Shringar	Ghatkopar
Fame	Pune
Cinemax	Ahmedabad
Fame	Baroda
Era	Meerut

Education

Masieed School	Doha
Shri Cheema Foundation	Bengaluru
Sarla Birla School	Bengaluru
Ethiraj College	Chennai
IIT Research	Chennai
Isam College	Chennai
Shankarlal Sundarbai	
Shasur Jain College	Chennai
Indian Institute of Astrophysics	Kodaikanal
PES College	Kuppam
ICICI Training Centre	Khandala
RBK International School	Mumbai
Mahatma Education Society	Gorai
ITI Dheerpur	New Delhi
Amity School	Gurgaon
Gautam Buddha University	Noida

Healthcare

Shanthy Hospital	Bangalore
Novartis Healthcare	Hyderabad
Vimta Labs	Turkapally
Mandke Foundation	Mumbai

Hospitality

Coorg Kabbinkad Estate	Bengaluru
Krishna Hotel	Bengaluru
Taj Hotel	Bengaluru
The Park	Bengaluru
Leonia Resorts	Hyderabad
Jewel of Chembur	Mumbai
Red Cherry	Mumbai
Discotheque	New Delhi

Worship Space

Swami Shree Prempuriji Ashram	Mumbai
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Studio

Chennai Live - FM Studio	Chennai
Modi Digital	Chennai
Dr. Sankaran's Studio	Pondicherry
Studio	Vishakapatnam
Symbiosis	Pune

Home Theatre

BR Sudhakara	Bengaluru
Krishnappa	Bengaluru
Narendra	Bengaluru
PS Sampath	Bengaluru
Sony Showroom	Bengaluru
Deepthi Reddy	Hyderabad
Corry	Pondichery
Pushkar	Pondichery
Sergio	Pondichery
Shriraman	Pondichery
Chandraprakash	Mumbai
Prasad Lad	Mumbai

Industrial

Zuari Industries	Goa
Atomic Power Station	Kalpakam

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