FORMALDEHYDE FREE

TECHNICAL DATA SHEET

POLYGOLD Pure INSULATION

ALSYNITE®

DESCRIPTION

POLYGOLD PURE provides building occupants optimum level of indoor air quality deserved while maintaining its superior insulation properties. It is specifically designed for industrial, commercial, residential and mechanical application. Alsynite formaldehyde free insulation utilises an innovative new binder that eliminates binder-related formaldehyde emissions during manufacturing and will not emit formaldehyde indoors.

Once installed, the insulation acts as a highly effective glass mineral wool insulation offering superior performance.

APPLICATIONS

Application focused, POLYGOLD PURE is designed for various roof, HVAC, wall and ceiling applications for fire safety, thermal and acoustical insulation.

FORMALDEHYDE FREE

Formaldehyde has traditionally been used as part of the binder in glass mineral wool insulation. Although there is no health risk with the traditional product, formaldehyde at higher level may cause irritation and sensitivity. POLYGOLD PURE formaldehyde free insulation utilises an innovative new binder that eliminates binder-related formaldehyde emissions during manufacturing and once installed, will not off-gas formaldehyde in the indoor environment. No formaldehyde means fewer things to worry about.

ADVANTAGES

Optimal fibre diameter. Optimal fibre diameter ranging from 4-5microns produces more air pockets which enables the insulation to provide a better and enhanced performance.

Better fibre network. Fine, longer and evenly distributed fibre network helps in creating better tensile strength allowing the insulation to demonstrate superior durability, flexibility and feeling much softer.

Alkalinity. pH 9.

Improves Indoor Air Quality. Formaldehyde free binder reduces the overall formaldehyde exposure. Formaldehyde free insulation means a better smelling indoor environment and less formaldehyde in the air.

Less dusty and less itchy. Specifically engineered to produce a comfortable and less dusty insulation. The insulation creates a pleasant work experience by reducing the tingling feeling during installation.

Reduce Sound Transmission. Exceptional sound-absorbing properties. Specially designed to reduce transmission of unwanted noise. This is ideal for drywall partition systems for rooms and offices in residential, commercial and industrial buildings.

Thermal Performance. Excellent thermal performance by reducing heat gain and loss through partition walls.

Mould Growth. Does not breed or sustain mold, fungus, bacteria or rodents.

Corrosiveness. Will not cause or accelerate corrosion of steel, stainless steel, copper or aluminum due to its particular inorganic and mineral composition.

Sustainable Product. Satisfying the growing indoor air quality (IAQ) needs, POLYGOLD PURE insulation uses no ozone depleting products (ODP) in manufacture and has low volatile organic compounds (VOC) content.

BRANZ Tested.
Polygold Pure is BRANZ tested to AS/NZS 4859:1

BRANZ Appraised
Appraisal No.628 [2014]

FIRE PROPERTIES Tested in accordance with:
- A.S. 1530.3.1989 Fire hazard property of material
- B.S. 476: Part 4 Non-combustibility test for materials
- B.S. 476: Part 6 Fire propagation
- B.S. 476: Part 7 Surface spread of flame
- BOMBA Class 'O'

SURFACE BURNING CHARACTERISTICS Meets the surface burning characteristics and limited combustibility of the following standards:
- ASTM E84
- NFPA 90A and NFPA 90B

Read this before you buy:
Insulation's effectiveness is measured in R-Value. R stands for the insulation's resistance to heat flow; heat escapes from your building and heated air enters your building. The higher the R-Value, the greater the resistance to heat flow and the greater your potential for saving energy, natural resources and money. Compare insulation R-Values before you buy.

R-Value = Thickness / K-Value

ALSYNITE®
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ALSYNITE POLYGOLD PURE INSULATION

POLYGOLD PURE PRODUCT RANGE

POLYGOLD PURE CEILING BISCUITS							
Product Description	SQM Per Pack	Thickness (mm)	Density (kg/m³)	Width (m)	Length (m)	Pieces per Pack	Packs per Bale
R2.2	8.43	90	12.00	0.432	1.22	16	2
R3.2	8.43	140	10.50	0.432	1.22	16	8
R3.6	7.38	160	10.00	0.432	1.22	14	8
R4.0	6.85	180	9.25	0.432	1.22	13	8
R4.6	5.27	190	12.00	0.432	1.22	10	8

POLYGOLD PURE WALL BISCUITS							
Product Description	SQM Per Pack	Thickness (mm)	Density (kg/m³)	Width (m)	Length (m)	Pieces per Pack	Packs per Bale
R2.2	10.58	90	12	0.58	1.14	16	8
R2.6	5.29	90	24	0.58	1.14	8	8

POLYGOLD PURE WALL BISCUITS – HUSH							
Product Description	SQM Per Pack	Thickness (mm)	Density (kg/m³)	Width (m)	Length (m)	Pieces per Pack	Packs per Bale
R2.8	3.97	90	32	0.58	1.14	6	8

POLYGOLD PURE BLANKET (BIB)					
Product Description	SQM Per Roll	Thickness (mm)	Density (kg/m³)	Width (m)	Length (m)
R1.8	14.4	75	12	1.2	12
R2.3	12.0	100	12	1.2	10
R2.8	8.4	110	14	1.2	7
R3.6	6.0	140	16	1.2	5
R3.6	6.0	160	10	1.0	6

INDIVIDUAL VOLATIVE ORGANIC COMPOUNDS (VOCs) EMISSION:

POLYGOLD PURE is safe to use due to the low VOC content. Tested in accordance with ASTM D 5116.

Analyte	24 Hr Emmission Factor (µg/m²·hr)	Certification Criteria		168 Hr Predicted Concentration	
		Greenguard	Children & Schools	Greenguard	Children & Schools
TVOC	4.8	≤ 0.5mg/m³	≤ 0.22mg/m³	0.001mg/m³	0.001mg/m³
Formaldehyde	2	≤ 0.05mg/m³	≤ 0.0135mg/m³	< 0.001ppm	0.001ppm
Total Aldehydes	2	≤ 0.1ppm	≤ 0.043ppm	< 0.001ppm	0.001ppm

EMISSION FACTORS OF SELECTED ALDEHYDES AT 24 ELAPSED EXPOSURE HOURS: POLYGOLD PURE emission level compared to the emission criteria of the GREENGUARD IAQ and GREENGUARD Children and Schools Standards.

CasNumber	Compound Identified	Emission Factor (µg/m²·hr)
4170-30-3	2-Butenal	BQL
75-07-0	Acetaldehyde	BQL
100-52-7	Benzaldehdyde	BQL
5779-94-2	Benzaldehdyde, 2, 5-dimethyl	BQL
529-20-4	Benzaldehdyde, 2-methyl	BQL
620-23-5 / 104-87-0	Benzaldehdyde, 3- and/ or 4-methyl	BQL
123-72-8	Butanal	BQL
590-86-3	Butanal,3-methyl	BQL
50-00-0	Formaldehyde	2.00
66-25-1	Hexanal	BQL
110-62-3	Pentanal	BQL
123-38-6	Propanal	BQL

AVAILABLE FORM: Unfaced or Plain - designed for predictable thermal insulation performance with the added benefit of being an effective sound absorption and fire safety material.
Faced – please contact Alsynite representative for further information on available facing materials.

Technical specifications as shown in this literature are intended to be used as general guidelines only. The physical and chemical properties of fire safety, thermal and acoustical glass mineral wool insulation listed herein represent typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Any references to numerical flame spread or smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

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