



YOUNGTHERM® GLASS WOOL BASE

Thermal and Acoustic Insulation

GENERAL DESCRIPTION

YOUNGTHERM® Glass Wool is a high performance thermal and acoustic insulation material designed for use in flat roof ceiling systems. The insulation is intended for applications where effective thermal resistance, acoustic absorption, fire compliance, and long-term durability are required, particularly in buildings with flat roof ceiling systems.

MATERIAL COMPOSITION

YOUNGTHERM® Glass Wool is lightweight, flexible glass wool insulation manufactured with a non-combustible binder.

FIRE PERFORMANCE

YOUNGTHERM® Glass Wool complies with the following fire performance standards:

- **A1 - s1,d0** – Non-combustible classification
- **SANS 53501-1**

The product is approved for use in single- and multi-level buildings where fire performance compliance is required

DURABILITY AND ENVIRONMENTAL RESISTANCE

- Non-hygroscopic and moisture resistant
- Will not support mould, bacteria, or vermin growth
- Odourless and chemically inert
- Compatible with all common building materials
- Will not corrode metals
- Dust accumulation does not impair thermal or acoustic performance

APPLICATIONS

Suitable for use in:

- Flat roof ceiling systems in residential buildings
- Flat roof ceiling systems in commercial offices
- Flat roof ceiling systems in light industrial buildings
- Retrofit ceiling insulation applications
- New build ceiling installations

PERFORMANCE REQUIREMENTS

Thermal Performance

- Reduces heat gain and heat loss through roof assemblies by means of conductive thermal resistance provided by the glass wool insulation layer
- Supports improved building energy efficiency
- Thermal conductivity (k-value): **0.039 W/m·K**

Acoustic Performance

- Provides effective sound absorption
- Improves internal acoustic comfort in industrial and commercial environments
- Suitable for large open span buildings with flat roof ceiling systems

HANDLING AND STORAGE

- Store flat, dry, under cover, and off the ground
- Avoid applying pressure to or bending the roll, as this may cause damage.
- Allow **24-48 hours** for full thickness recovery after unpacking
- Not suitable for prolonged UV exposure

SUSTAINABILITY AND COMPLIANCE

YOUNGHERM® Glass Wool is manufactured in accordance with recognised quality and environmental management systems:

- **ISO 9001:2015 – Quality Management**
- **ISO 14001:2004 – Environmental Management**
- Zero Ozone Depleting Potential
- Zero Global Warming Potential
- Reduced material usage and emissions through efficient manufacturing

INSTALLATION REQUIREMENTS

Installation shall be carried out in accordance with manufacturer recommendations and standard industry practice.

Installation Guidelines

- Measure spacing between trusses
- Cut Youngtherm to fit (in packaging)
- Roll out between trusses
- Lay under wiring, cut around downlights
- Wrap exposed pipes with off-cuts

STANDARD PRODUCT DIMENSIONS AND THERMAL VALUES

DENSITY	R-VALUE	THICKNESS	ROLL LENGTH	WIDTH	K-VALUE
12kg/m ³	1.30	50 mm	25 m	1200 mm	0.039
12kg/m ³	1.95	75 mm	18 m	1200 mm	0.039
12kg/m ³	2.60	100 mm	12 m	1200 mm	0.039
12kg/m ³	3.52	135 mm	10 m	1200 mm	0.039

HIGH-TEMPERATURE VARIANT

High-Temperature Performance Features

- Fully non-combustible
- Maintains thermal and acoustic performance at elevated temperatures
- NRC range: **0.75 – 1.24**
- Moisture-resistant and non-hygroscopic
- Long service life with no maintenance requirements

SPECIFICATION CLAUSE

Thermal and acoustic insulation to roofing systems shall be **YOUNGHERM® Glass Wool**, supplied and installed in accordance with manufacturer recommendations, with performance, fire classification, and dimensions as specified herein. Install (50/75/100/135)mm thick flexible noncombustible lightweight “Youngtherm Glass Wool” insulation material between the roof trusses and over bracing/purlins in a completed roof and ceiling system. Installation strictly in accordance with the manufacturer’s detail and specification.

SUPPLIER AND TECHNICAL SUPPORT

YOUNGHERM® Glass Wool is supplied and supported by **Youngman Roofing & Insulation**, an established South African manufacturer and distributor of roofing and insulation solutions for industrial and commercial applications. For technical assistance, product selection, specification support, and project-specific guidance, contact:

T: +27 (0) 21 511 8125

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W: www.youngman.co.za

Technical consultation is recommended to confirm product selection, thickness, and installation requirements for specific project conditions.

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