



## THE EUROPEAN MARKET FOR THERMAL INSULATION PRODUCTS

IAL Consultants is pleased to announce the publication of the fourteenth edition of its popular study on **The Market for Thermal Insulation in Europe**.

This study updates the previous report published in 2021 and contains market data for all the main thermal insulation products, by material type and end-use application, for the base year of 2022. Data is presented in both volume (cubic metres and tonnes) and value (€), with five-year forecasts to 2027. The materials covered include:

- Glass Wool
- Stone Wool
- White EPS
- Grey EPS
- XPS
- PUR
- PIR
- Phenolics
- ENR
- PE
- Renewable Insulation Materials
- Vacuum Insulation Panels/Aerogel

***An in-depth report covering 26 countries and the 4 key insulation material types:***

The report is based upon an extensive programme of interviews throughout the industry and across the different geographies in Europe. This has been further supported by an analysis of economic indicators and relevant legislation and/or technical issues affecting the demand for thermal insulation materials. The analysis covers 26 countries (including all major European thermal insulation markets), covering the insulation materials mentioned above.

In addition, separate material volumes are provided for the 4 key insulation materials: mineral wool, EPS (white and grey), XPS and PUR/PIR. Data is presented regionally (Western Europe, Central Europe and Eastern Europe) and then for the individual 26 countries. Furthermore, we have separated our analysis for the first time based on the categories of New Build, Non-Housing, and Renovation, Maintenance and Improvement (RMI) within the 'Building' segment.

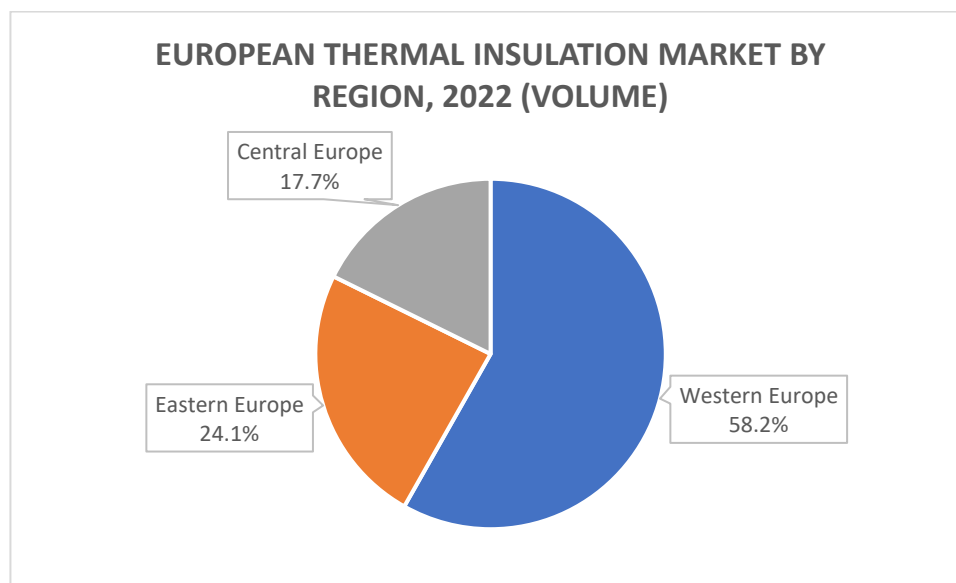
***All data is available on our online database platform, enabling the customer greater ease of comparison and data manipulation.***

### **Market Summary and Key Findings**

- The total market for thermal insulation products in Europe stood at **274.2 million m<sup>3</sup>** in 2022 (**10.3 million tonnes**). This equates to an approximate market value of **€29.6 billion**.
- The **CAGR** is forecast at **2.1%** from 2022 to 2027. The 2023 market is estimated at **253.6 million m<sup>3</sup>**, a decline of over **7.5%** from 2022.
- In recent years, the majority of European countries have suffered as a result of the fallout from the Russia-Ukraine war, which has resulted in severe inflation. Most of the

European nations saw flat or negative growth rates in 2022 compared to 2021, with the exception of Hungary, Turkey, Ireland and Italy.

- Western Europe accounted for 58.2% of the European thermal insulation demand in the region in 2022, and the market is forecast to show growth at a **CAGR of 2.0%** to 2027. In 2022, only Ireland and Italy had a positive growth of about 6% and 2%, respectively, compared to 2021. Belgium and Portugal saw very low growth.
- The Central European market's share has decreased slightly since IAL's last report, representing 17.7% of demand with a **CAGR of 1.6%** to 2027. In 2022, all the Central European countries exhibited flat or negative growth except for Hungary, which showed a steady growth of 1.7%. There was very low growth in Bulgaria, Slovakia and Romania.
- Eastern Europe's market share has risen in 2022, comprising 24.1% of European thermal insulation demand. Furthermore, Eastern Europe is expected to recover during the forecast period to register a **CAGR of 2.4%** to 2027. Russia is the strongest market in the region and also continues to be the largest, but it experienced a small decline in 2022.



**Total: ~274,200,000 m<sup>3</sup>**

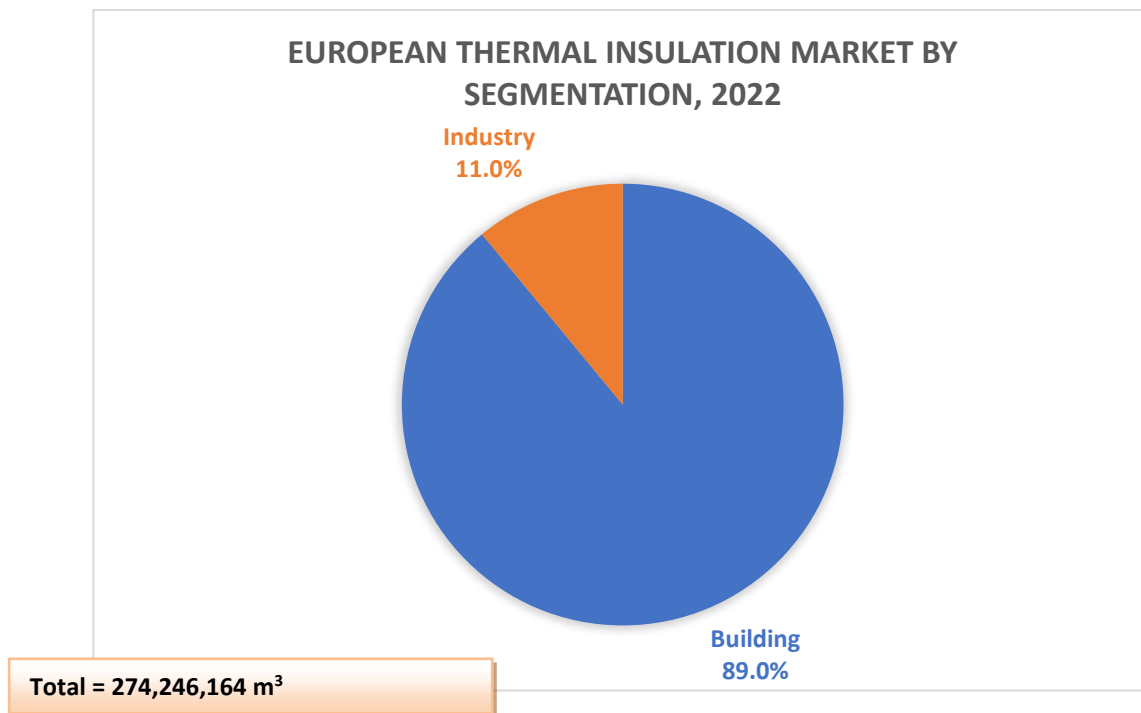
The building segment holds a significantly larger share of the European thermal insulation market, accounting for nearly 89%, compared to industry's share of 11%. The overall usage of thermal insulation in industrial applications is still much lower. In building applications, walls remain the most common end-use segment, while in industrial applications, pipe lagging remains the most common.

### Insulation Materials

Glass wool and stone wool are the most prominent materials in Europe and, combined, they represent 56% of the thermal insulation market. Mineral wool insulation materials experienced higher price increases due to high energy and transport costs. Glass wool remains the most popular thermal insulation material in Europe. It has gained market share in recent times due to the emphasis on using non-combustible insulation materials, and this has been aided by new EU regulations governing the fire resistance of insulation materials for buildings above 28 metres (European class A1 and A2), which came into effect following the Grenfell Tower fire.

Furthermore, mineral wool manufacturers continue to push their enhanced fire protection characteristics in comparison to foam plastic insulation materials.

EPS remains a very popular material, making up just less than 23% of the whole market. EPS is especially prevalent in external wall insulation systems. However, EPS consumption in many Western European countries is suffering because of its poor fire resistance properties. This is not the case in some Central and Eastern European countries, where the price sensitivity of the market favours EPS and other, cheaper materials.



In Europe, XPS growth has been steady, with a 1.6% decrease from 2021 to 2022. The material's high compression strength and low permeability make it useful in certain applications. XPS can be used in board form for wall, flooring and roofing applications due to its physical characteristics. Owing to its high price, its specific properties are mostly utilised in applications like cold stores, perimeter insulation and refrigerated transport. XPS accounts for 6.3% of the demand for thermal insulation.

PUR and PIR foams are not used as much as some other materials because they are relatively expensive. They are highly adaptable materials, though, due to their wide operating temperature and exceptional low thermal conductivity. PUR/PIR together account for 11% of European thermal insulation materials. The industry has had some difficult years as a result of price increases brought on by shortages of raw materials and modifications to blowing agent regulations. PIR continues to take market share from PUR due to its superior thermal performance.

Phenolic foam is one of the fastest-growing materials currently but remains a niche market in thermal insulation and has a very low market share. Phenolic foam finds most of its use in industrial applications, such as pipe lagging.

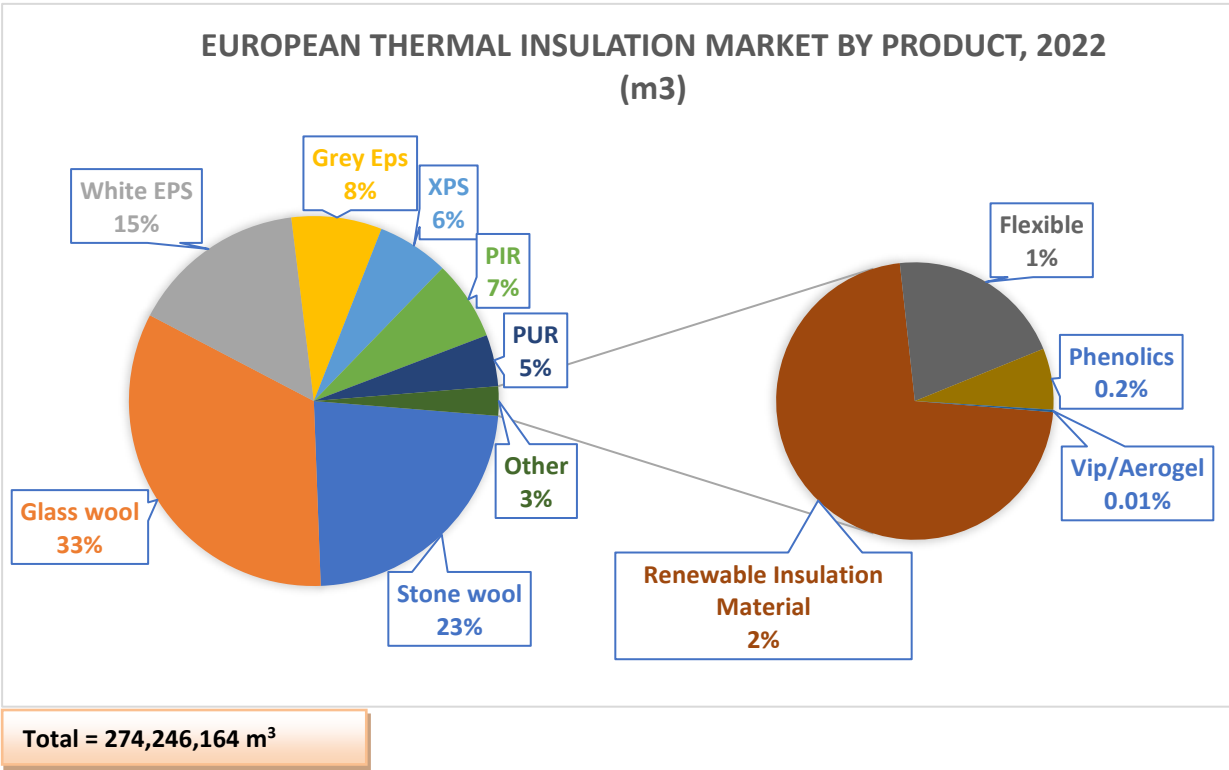
Flexible insulation is primarily used for pipe insulation, with ENR being preferred for cold pipes, HVAC and process plant applications, and PE being used in domestic lagging. In volume terms,

ENR is a smaller market but is showing faster growth than PE due to its superior fire resistance properties. ENR and PE possess around 1% of the entire thermal insulation market share, combined.

Renewable insulation materials are a natural alternative to synthetics and have become more prominent in recent years, owing to the global emphasis on environmentally friendly products. There are many types of renewable thermal insulation, with cellulose being the most popular because of its ease of application and ability to be used in retrofitting. Wood fibres are also popular in this segment. Renewable insulation materials account for ~2% of demand.

VIPs use the insulation of a vacuum within a gas-tight film to give outstanding thermal performance. They are mostly used in specific applications where space is an issue, due to their lower thickness when compared to other panels. Aerogels are synthetic, ultra-light materials derived from a gel (usually silica) and are mostly used for niche applications that require high thermal performance, such as pipe insulation for cryogenics in the liquefied natural gas industry. These materials have the smallest market share in the European thermal insulation market.

Prices for all thermal insulation materials have increased in recent years, some more significantly than others, owing to supply chain issues and increasing energy and raw material prices. However, the EU Green Deal is expected to have a positive impact on the market and will increase the demand for all types of thermal insulation.



***The European Market for Thermal Insulation Products*** is now available from IAL Consultants. Prices start at €1,600 for single country volumes and €8,750 for market volumes. The whole report is priced at €25,000, which includes online database access and the executive summary.

***All data in this report plus additional historical trends and forecasts are available in our unique online database.***

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