



Environmental and Health Benefits of Tontine Insulation



INTRODUCTION

All Tontine insulation products are made from 100% thermally bonded polyester fibre. Polyester fibre is commonly used in clothing and bedding applications. Polyester fibre also uses the same raw material as PET (Polyethylene Terephthalate – Plastics Identification Recycling Code #1). PET is commonly used in bottles and jars for storing water, soft drinks, sauces and spreads. Polyester fibre is non-toxic and no known physical or health hazards have been associated with polyester over several decades of use across the world in a multitude of applications.

EASE OF INSTALLATION

Tontine insulation products are safe and easy to install with no special clothing, gloves or masks required for installation. Tontine insulation is dust free and a non-irritant. With increasing emphasis on workplace safety this is an important advantage, since there are no potential OH&S issues arising from its use. No special or restricted areas are required on site when installing Tontine insulation products.

PRODUCT STEWARDSHIP

Tontine Fibres' product stewardship program allows all customers to return clean offcuts and packaging for recycling. All packaging and products are required to be returned in a clean state and appropriately packaged to minimise the energy and resources required for transport, recycling and reprocessing. More details on the stewardship program can be found on the www.unitedbonded.com.au website.

LONGEVITY OF INSULATION PERFORMANCE

Since Tontine insulation products do not use resin based binders that may deteriorate over time, the insulation will not sag, become brittle, degrade or contribute to indoor airborne dust. It does not absorb moisture and is insect and vermin resistant. The insulation will maintain the stated performance for the life of the building, when installed in accordance with AS 3999.

RECYCLED FIBRE CONTENT AND ENERGY USAGE

Tontine Fibres is the first polyester insulation manufacturer in Australia to use a minimum 80% recycled fibre content in insulation products. Recycled polyester fibre uses less than half the embodied energy of virgin polyester. So not only is there an energy saving by using Tontine insulation products to reduce heating and cooling requirements, there is an energy saving by specifying Tontine insulation products due to the lower embodied energy content of the insulation material.

Using Tontine insulation products is very beneficial in a Life Cycle Analysis (LCA) because they are 100% recyclable.

Tontine Fibres is committed to minimising the environmental impact of its operations and embodied energy content of the insulation material:

Tontine Fibres works closely with other manufacturers to collect and recycle polyester fabrics.

Tontine Fibres has instituted a product stewardship program to manage waste from the use of its products.

Tontine Fibres employs state of the art energy efficient production processes.

Tontine Fibres' nationwide footprint reduces the cost of transport for supply of goods to its customers.

Tontine Fibres has active waste management programs in place to minimise the generation and disposal of production waste to landfill with the majority of waste materials recycled either in-house or by recycling partners.

All of the plastic packaging used by Tontine Fibres is recyclable and made from LDPE (Low Density Polyethylene - Plastics Identification Recycling Code #4). Whenever possible, remilled (recycled) LDPE is specified for the plastic packaging.



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ZERO OZONE DEPLETING POTENTIAL

The materials used in insulation products made by Tontine Fibres and the manufacturing processes used in Tontine Fibres factories to make these products, have a zero Ozone Depleting Potential (ODP).

ZERO FORMALDEHYDE

The manufacturing process for polyester insulation products at Tontine Fibres does not include the use of solvents or resins. Therefore there is no residual formaldehyde or other Volatile Organic Compounds (VOCs) on the insulation material due to the manufacturing process. With polyester not being a VOC either, the VOC content of our polyester insulation products is expected to be negligible.

ZERO CHLORIDES

The insulation products made by Tontine Fibres do not contain any raw material with chloride compounds, nor are chloride compounds used in the insulation manufacturing process. There are also no other corrosive chemicals used at any stage of the manufacture of the insulation or the raw materials. Therefore all Tontine insulation products can be considered to have non-corrosive properties. All Tontine insulation products are exempt from the AS4859.1 requirement for corrosive testing.

NON-ALLERGENIC PROPERTIES

The polyester used in Tontine insulation products has non-allergenic properties and is safe for asthma sufferers. Tontine insulation products do not contain binders that may deteriorate and crumble over time, or use brittle or short fibres that are prone to breakage and/or easily respirable. Therefore it does not have the potential to create airborne dust due to fibres or other detritus working their way down through lighting and air conditioning vents in the ceiling. Polyester is the only fibrous insulation approved by Asthma Foundations Australia for unrestricted use in low allergen or asthma friendly buildings ^{1,2}.

¹ The Asthma Foundation of Western Australia Inc, "Towards the Low Allergen Home", www.asthmawa.org.au.

² Asthma Foundation NSW, "Asthma Friendly Children's Services – Guidelines", www.asthmansw.org.au.

FOR FURTHER INFORMATION OR AN MSDS, CALL 1300 TONTINE OR E-MAIL customercare@unitedbonded.com.au

Testing has been carried out on flat pad media in a NATA certified laboratory under controlled conditions in accordance with AS1324.2. Care should be taken quoting results in other configurations. Variations in air to media ratio and configuration may give significantly different results. As these products are subject to constant research and development, we reserve the right to update the contents without notice. Recommendations regarding the use of products are to be taken as a guide only, and the purchaser should independently determine the suitability of a product for the intended application.

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