



# Environmental and Health Benefits of Star Insulation

## INTRODUCTION

All Star 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

Star Insulation products are safe and easy to install with no special clothing, gloves or masks required for installation. Star 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 (Occupational Health & Safety) issues arising from its use. No special or restricted areas are required on site when installing Star Insulation products.

## LONGEVITY OF INSULATION PERFORMANCE

Since Star 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.

## RECYCLED FIBRE CONTENT AND ENERGY USAGE

Star Insulation is a polyester insulation manufacturer to use a minimum 60% 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 Star Insulation products to reduce heating and cooling requirements, there is an energy saving by using Star Insulation products due to the lower embodied energy content of the insulation material.

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

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

Star Insulation works closely with other manufacturers to collect and recycle polyester fabrics.

Star Insulation employs state of the art energy efficient production processes.

Star Insulation's nationwide footprint reduces the cost of transport for supply of goods to its customers.

Star Insulation 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 Star Insulation 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 Star Insulation and the manufacturing processes used in Star Insulation factory to make these products, have a zero ozone Depleting Potential (ODP).

## ZERO FORMALDEHYDE

The manufacturing process for polyester insulation products at Star Insulation does not include the use of solvents or resins. Therefore there is no residual formaldehyde or other Volatile Organic Compounds (VOCs) on the insulation 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 Star Insulation 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 Star Insulation products can be considered to have non-corrosive properties.

## NON-ALLERGENIC PROPERTIES

The polyester used in Star Insulation products has non-allergenic properties and is safe for asthma sufferers. Star 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.

