# ENVIRONMENTAL DATASHEET GuaraTEC



## Product: GuaraTEC

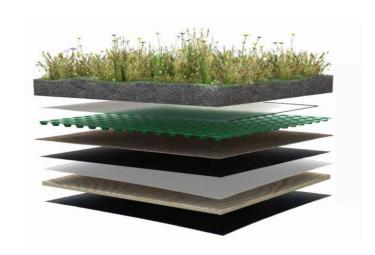
GuaraTEC is a BBA accredited hot melt rubberised bitumen waterproofing system used mostly on concrete roof and podium decks in inverted, warm and green roof constructions. It is a dual layer monolithic system fully bonded to the deck and can be laid dead flat (zero falls)

#### Materials

GuaraTEC contains up to 25% post-consumer recycled material in the form of rubber crumb from used tyres and reclaimed ash. GuaraTEC hot melt structural waterproofing system components are procured and developed under Guaranteed Asphalt's responsible sourcing policy for raw materials.

#### Manufacture

GuaraTEC hot melt roofing and structural waterproofing is manufactured at our UK plant in Corby, Northamptonshire, a geographically strategic centre given its' centrality in England. The product is independently audited to the ISO9001 Quality Management System by the British Board of Agrement. Guaranteed Asphalt has embarked (as of March, 2016) on achieving ISO14001 and expects to achieve this by the autumn, 2016. Procuring materials with the newimplemented Environmental Management System ensures that suppliers own processes are monitored for their environmental impact, and that due consideration is taken for all aspects of packaging, transport and disposal, in order to deliver as sustainable a construction product as is practicable.



## **BREEAM Credits**

GuaraTEC, in common with all waterproofing laid on in-situ reinforced concrete currently carries a generic 'C' to 'E' summary rating in the Green Guide to Specification. This is almost entirely due to the concrete deck which, although being a material with very low embodied energy, needs to be used in high mass in roofing and podium structures. The use of less dense forms of construction such a hollow pre-cast concrete with structural topping or waffle slabs and recycled aggregates can achieve the better ratings. CO2 blown insulations used as part of the GuaraTEC system have Zero Ozone Depletion Potential (ODP) and a Global warming Potential (GWP) of less than 5. This will contribute maximum credit as part of a BREEAM assessment. Further BREEAM credits would also be available for the use of responsibly sourced GuaraTEC material and for its use as part of a green roof construction.

#### Recyclability

Whilst end of life recycling is currently only viable for the insulation element of the system build up, advances are continually being made in the use of recycled material during production processes. Life Expectancy GuaraTEC Hot melt roofing and structural waterproofing systems have a BBA accredited life expectancy for the life of the structure to which they are applied. This greatly enhances the product's cradle to grave embodied energy figure relative to systems with shorter lifespans. This also results in the removal of the appreciable costs, both environmental and monetary, of product replacement.

# **Ecological** information

Subsequent to manufacture, GuaraTEC is a stable product which performs well for effects on water quality and water and ground contamination, particularly given the particularly long lifespan of the product, which is expected to exceed 60 years.