

**For the attention of all users of Wrekin BonTec Geotextiles**

Dear Sir/Madam

**Lifetime Prediction of Wrekin BonTec Geotextiles**

This statement is offered in support of the Wrekin BonTec range of woven and nonwoven geotextile products when used in a construction application. Please note that the **comments apply to Polypropylene products only.**

The Wrekin BonTec range of geotextile products are manufactured in our plants at Lokeren and Zele in Belgium. The woven products are produced with polypropylene tapes and the nonwovens needle punched from staple fibres. Both the extruded tapes and staple fibres are manufactured from Polypropylene and have a number of additives included within their formulation that offer both stability and an element of protection from UV degradation.

Polypropylene is a relatively inert and stable polymer. However, under specific circumstances it can exhibit a deterioration of its mechanical properties. Degradation mechanisms that can effect such products include:

- **UV light (solar radiation) resulting in photo degradation:** As geotextiles are intended for use below ground then damage by this mechanism is of minor concern. Products are subjected to temporary exposure during placement and as a result installation guidelines recommend that short-term exposure should not exceed 24 hours. For applications where long-term exposure is unavoidable a number of special products with additional UV protection are available.
- **Heat exposure resulting in Thermal Oxidative Degradation:** Thermo oxidation is an extremely slow process and does not generally cause degradation within most product lifecycles.
- **Chemical attack from strong oxidising acids; chlorinated solvents and aromatic hydrocarbons resulting in product embrittlement or swelling:** Chemical reaction is not a problem in natural soil where PP is known to offer an excellent chemical resistance to acids and alkalis at ambient temperatures. However a possibility of damage does have to be considered when the product comes into contact with organic solvents that may appear in contaminated land.
- **Mechanical damage during Installation:** This is commonly the prime factor that effects the useful life of a geotextile product. It is therefore critical that users adhere closely to the manufacturers "Installation Guidelines" in an effort to minimise damage and preserve the integrity of the geotextile.

Additional comments on the general versatility of Polypropylene include:

- **Moisture absorption** of PP is exceptionally low and therefore the action of water at ambient temperatures has no effect on the mechanical properties
- **PP is resistant to microorganisms and insects** and will not support the growth of mildew or fungi and is not digested by insects.

Based on the above information we are confident that when correctly installed the Wrekin BonTec range of polypropylene geotextiles will have a service life in excess of 60 years

This information is offered in good faith and is to the best of our knowledge a true and accurate statement on the performance properties of our polypropylene geotextile products. Wrekin / Bonar Technical Fabrics cannot however accept responsibility for the insitu performance of their products as the conditions of use are outside their control. Product users must satisfy themselves that the product is fit for the intended use.