

Plastics and Rubber Advances: a new journal for spreading the latest challenges in plastic and rubber production

Jonathan Oti

Faculty of Computing, Engineering and Science, University of South Wales, Pontypridd, United Kingdom

Plastics and rubber productions worldwide has witnessed a rapid growth and are used in a wide range of industries including food and pharmaceutical, water treatment, chemical, brewing, mining and quarrying, aerospace, power generation, packaging, recycling and distribution.

While people are enjoying the benefits, wastes from plastic and rubber have generated significant environmental concerns such as land occupation. To alleviate the situation, waste plastic and rubber are mixed with asphalt to produce asphalt rubber, to improve the fatigue performances of asphalt. However, some difficulties, such as the high viscosity of the rubberized bitumen and the requirement of higher temperature for production of rubberized asphalt have been found to be barriers, which limit its application.

In addition, the use of powdered rubber, plastic and asphalt base mixture to form plastic-rubber asphalt is also on the increase. Expanded polystyrene waste is recycled by solvent extraction to material with characteristics of wood. PVC bottles can be recycled into plastic pipes. Many recycled plastics and rubber have a reduced resistance to degradation, as thus, the products would therefore fail to reach the technical standards when compared to new ones.

The treatment of plastic waste comprises fragmentation, sizing, sorting, washing and drying, agglomeration, and granulation; on the other hand, rubber waste is unsuitable for deposition at landfill sites because of poor compressibility, resilient surfaces, extremely long rotting time, and forming of cavities with air inclusion. Recycled rubber waste could be crushed into particles with different sizes and subsequently, using them as aggregate in cement mortar and concrete. It is a well-established fact that introduction of rubber to concrete can cause a decline in concrete strength.

The journal of Plastics and Rubber Advances will strive to bring new quality information on plastics and rubber; the journal will be an attractive possibility for scientists to publish their work. As you know, the Journal for Plastics and Rubber Advances is an Open Access Journal focused on publishing peerreviewed papers and conference proceedings, with the priority of their fast dissemination. It offers a single place where your work can be hosted, and accessed by the worldwide researchers.

Articles are accepted for publication in this Journal on the basis of some requirements. First of all, their scopes must suit those of Plastics and Rubber Advances. Moreover, it is required they meet the high PAGEPress formal and scientific standards, including the assurance that all papers are original, and have not been published elsewhere. Correspondence: Jonathan Oti, Faculty of Computing, Engineering and Science, University of South Wales, CF37 1DL Pontypridd, United Kingdom. Tel/Fax: +44.01443.483452. E-mail: jonathan.oti@southwales.ac.uk

Key words: Plastics; Rubber; Plastics and Rubber Advances; PAGEPress.

Received for publication: 2 September 2015. Accepted for publication: 2 September 2015

This work is licensed under a Creative Commons Attribution 3.0 License (by-nc 3.0).

©Copyright J. Oti, 2015 Licensee PAGEPress, Italy Plastics and Rubber Advances 2015; 1:2 doi:10.4081/pra.2015.2