NEW PROCESS TO OBTAIN POLYMERIC FOAMS FOR DIFFERENT APPLICATIONS.

TECNOLOGÍA PATENTADA

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RESUMEN

The research group "Procesado y Pirólisis de Polímeros" of the Chemical Engineering department in the University of Alicante has developed a novel process to recycle different types of plastic (EVA, polyethylene, polypropylene, polyurethane, foams, rubber or any kind of combination of them). The method can convert these materials into products for different sectors and applications, in an easy and economical way.

The researchers are seeking companies interested in licensing this technology and put it in the market.

VENTAJAS Y ASPECTOS INNOVADORES

- Homogeneous products with high thickness (2.5 – 25 cm of diameter)
- All the pieces obtained have constant and uniform properties.
- The time required in the process is considerably reduced. This time is till seven times reduced compared with a traditional oven.
- This method allows reusing a high percentage of plastic waste even though they were reticulated.
- The mould used to cold the product can be reused for a long period of time.
- All the components involved in the process are processed in an easy, fast and economic way. All the components are mixed in a first step and afterwards the mixture is heated by microwaves.
- The plastic components are used in powder or grain shape.
- Se obtienen productos homogéneos de elevado espesor (piezas entre 2,5 y 25 cm. de diámetro).

INNOVATIVE ASPECTS
The use of plastic waste in the compositions allows the recycling process in an easy, cheap and fast way.
It is possible to obtain homogeneous and stable pieces, with a particular thickness (till 25 cm of diameter).

APLICACIONES DE LA OFERTA

This innovative process has been designed to use plastic wastes generated in different industries. EVA, polyethylene, polypropylene, polyurethane, foams, rubber or any combination of them can be used. Using the innovative method can be obtained pieces with different thickness depending on the application that this piece will have. For example:

- Road signs protectors.
- Net floats.
- Signalling buoys.

- Life preserver floats.
- Wheels for different vehicles.
- Soles for shoes.
- Ground sheets.
- Acoustic barrier sheets.
- Others.

COLABORACIÓN BUSCADA

- Type of partner sought: companies
- Specific area of activity of the partner: plastic industry
- Task to be performed: the research group is looking for companies interested in licensing this new method and put it in the market.