

ABSTRACT

PROCESS FOR GRAFTING A FLUOROPOLYMER AND MULTILAYER STRUCTURES COMPRISING THIS GRAFTED POLYMER

The present invention relates to a process for grafting an unsaturated monomer onto a fluoropolymer, in which:

- a) the fluoropolymer is melt blended with the unsaturated monomer;
- b) the blend obtained in a) is made in the form of films, sheets, granules or powder;
- c) the products from step b) are exposed, in the absence of air, to photon (gamma) or electron (beta) irradiation with a dose of between 1 and 15 Mrad; and
- d) the product obtained at c) is optionally treated in order to remove all or part of the unsaturated monomer that has not been grafted onto the fluoropolymer.

The invention also relates to structures comprising at least one layer of these blends and at least one layer of another material.

The invention also relates to the use of these structures for obtaining a barrier effect.

These structures are barriers to many fluids and in particular to petrol and to air-conditioning fluids.

These structures may be formed into bottles, tanks, containers, pipes, hoses and vessels of all sorts. They may also be converted into films with which packaging is made.

The invention also relates to structures in which the fluoropolymer is used to protect substrates.