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Poly (vinyl alcohol) hydrogel (pva-h) membrane biodegradation study

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Polyvinyl alcohol has excellent film forming, resistant to oil and odorless and nontoxic. It has high tensile strength, flexibility, as well as high oxygen and aroma barrier.

Nowadays with concern of environmental maintenance this study had the preoccupation to obtain PVA hydrogel dressing with better biodegradability by addition of cassava starch in the formulation.

The obtained hydrogels were characterized by swelling behavior and gel fraction content. Biodegradation assay was performed in simulated soil and the biodegradability based on mass retention measured every 15 days for approximately six months.

In this study were prepared blends of PVA and starch with 0.0, 0.1, 0.2 and 0.3 wt %, in mass and evaluated the effect of the addition of starch on the physical chemical properties and biodegradation behavior.