

**Production and evaluation the properties of laminated oat protein film and electrospun nylon**

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In this study, electrospun nylon nanofiber as inter layer was used to reinforce oat protein based composite. To reach such goal 0.5, 1 and 1.5% w/w of the nylon nanofiber mat (NNM) was incorporated into the proteinaceous film. Results showed the film resisted to be solubilized in water while its mechanical properties, oxygen barrier and water vapor permeability were improved significantly. In addition, nanofiber did not affect significantly on optical properties of the films. Due to presence of 1.5% w/w of nanofiber, the elastic modulus increased significantly and therefore, glass transition temperature (TG) of laminated film was also increased. According to the results, incorporation of electrospun nylon nanofibers into protein polymer film may lead to improvement in its properties.

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