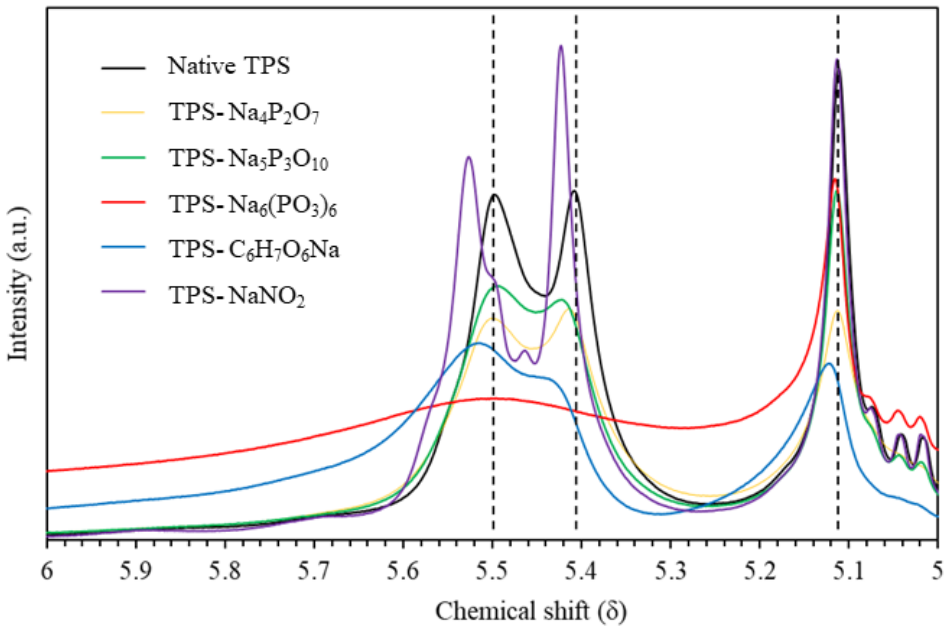

Figure S1 ^{1}H NMR spectra (δ=5-6 ppm) showing glycosidic linkage disruption of native starch and starch extrudates containing food preservatives namely tetrasodium pyrophosphate ($Na_4P_2O_7$), sodium tripolyphosphate ($Na_5P_3O_{10}$), sodium hexametaphosphate ($Na_6(PO_3)_6$), sodium erythorbate ($C_6H_7O_6Na$) and sodium nitrite ($NaNO_2$).

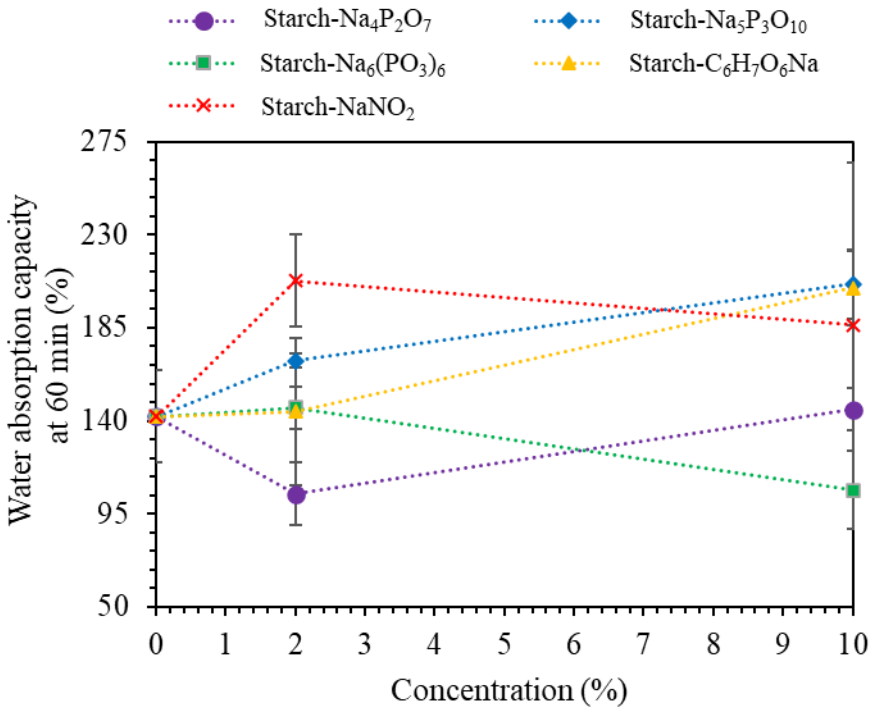

Figure S2 Water absorption capacity of native starch and starch extrudates containing food preservatives namely tetrasodium pyrophosphate ($Na_4P_2O_7$), sodium tripolyphosphate ($Na_5P_3O_{10}$), sodium hexametaphosphate ($Na_6(PO_3)_6$), sodium erythorbate ($C_6H_7O_6Na$) and sodium nitrite ($NaNO_2$).

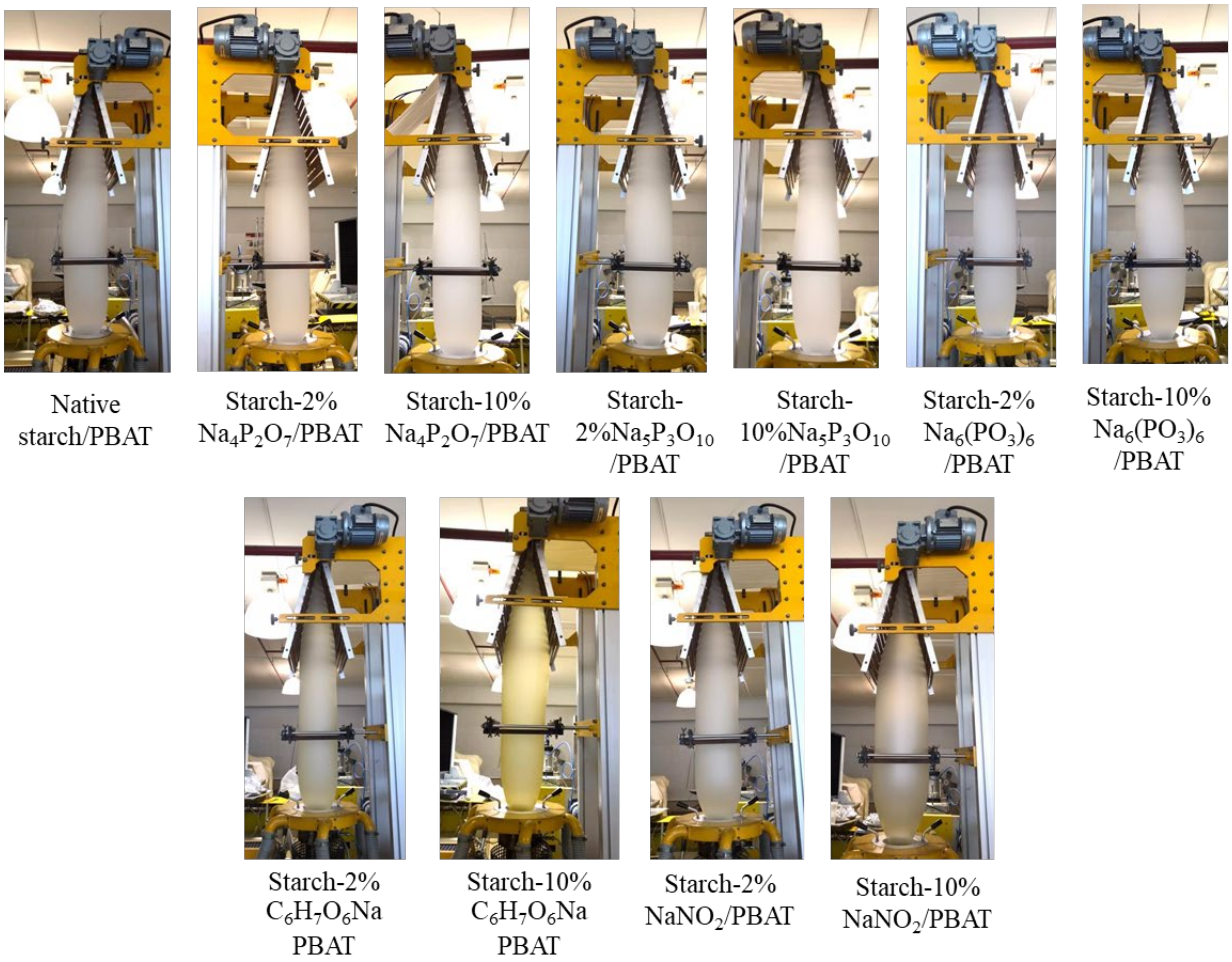

Figure S3 The native starch and starch containing 2% and 10% of each food preservative were blended with PBAT to produce active films via single screw blown film extrusion.