Consider the symmetric group $S_5$ and its non-trivial double cover $\tilde{S}_5$ with generalized quaternion Sylow 2-subgroups of order 16. Let $k$ be an algebraically closed field of characteristic 2 and let $B_0(kS_5)$ be the principal block of $kS_5$. We will discuss how to find all $B_0(kS_5)$-modules with stable endomorphism ring isomorphic to $k$ that also have stable endomorphism ring isomorphic to $k$ as $k\tilde{S}_5$-modules. These modules will have well defined universal deformation rings in the sense of Mazur. (Received September 18, 2007)