

ABSTRACT. Let R be a commutative Noetherian local ring, let M be a finitely generated R -module of finite projective dimension, and let $u \in M$ be a minimal generator of M . We investigate in a characteristic free setting the grade of the order ideal $O_M(u) = \{f(u) \mid f \in \text{Hom}_R(M, R)\}$. The main result is that when M is a k -th syzygy module and $\text{pd}_R M \leq 1$ then $\text{grade}_R O_M(u) \geq k$; in particular if M is an ideal of projective dimension at most 1 then every minimal generator of M is a regular element of R . As an application we show that the minimal generators of M are regular elements of R also in the case when M is a Gorenstein ideal of grade 3, in the case when M is a three generated ideal, and in the case when M is an almost complete intersection ideal of grade 3 and R is Cohen–Macaulay.