Stability of the generic polynomial of integers

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Let $f_1(x) = f(x) \in K[x]$ and for all $m \geq 2$, $f_m(x) = (f_{m-1} \circ f)(x)$. We say that f is a stable polynomial over K if for every $m \geq 1$, $f_m(x)$ is irreducible over K.

Let now $K = \mathbb{Q}(\theta)$ be a number field of degree n, $\{w_1, \ldots, w_n\}$ an integral basis of K. Let $u_1, \ldots, u_n$ be algebraically independent variables over K, $\xi = u_1 w_1 + \cdots + u_n w_n$ and $F(u_1, \ldots, u_n, x) = Irr(\xi, L, x)$ where $L = \mathbb{Q}(u_1, \ldots, u_n)$. The polynomial $F(u_1, \ldots, u_n, x)$ is called the generic polynomial of integers of K, it is homogeneous of degree n. It is stable in $\mathbb{Z}[u_1, \ldots, u_n, x]$ under some arithmetical conditions on K, for example, when there exists a prime number p in $\mathbb{Z}$ totally ramified in K.