The theory of regularity structures enables the definition of the following parabolic Anderson model in a very rough environment: \( \partial_t u_t(x) = \frac{1}{2} \Delta u_t(x) + u_t(x) \dot{W}_t(x) \), for \( t \in \mathbb{R}_+ \) and \( x \in \mathbb{R}^d \), where \( \dot{W}_t(x) \) is a Gaussian noise whose space-time covariance function is singular. We shall give some information about the moments of \( u_t(x) \) when the stochastic heat equation is interpreted in the Skorohod as well as the Stratonovich sense. Of special interest is the critical case, for which one observes a blowup of moments for large times. (Received January 20, 2019)