intrinsic viscosity

Synonym: limiting viscosity number

of a polymer

The limiting value of the reduced viscosity, \( \frac{\eta}{c} \) or the inherent viscosity, \( \eta_{\text{inh}} \), at infinite dilution of the polymer, i.e.

\[
[\eta] = \lim_{c \to 0} \frac{\eta}{c} = \lim_{c \to 0} \eta_{\text{inh}}
\]

Notes:
1. This term is also known in the literature as the Staudinger index.
2. The unit must be specified; cm\(^3\) g\(^{-1}\) is recommended.
3. This quantity is neither a viscosity nor a pure number. The term is to be looked on as a traditional name. Any replacement by consistent terminology would produce unnecessary confusion in the polymer literature. Synonymous with limiting viscosity number.

Source:
Purple Book, p. 63