

Development of Morphological Characteristics of Polyolefin Resin through Catalyst Design.

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Morphological characteristics of polyolefin resin in terms of shape, size, distribution, porosity etc. plays an important role in the development of specialty polyolefin along with enhancement of production capacity of manufacturing plant. It has been demonstrated that control of resin morphology is a consequence of the replication phenomena of catalyst morphology during polymerization process. The process parameters of catalyst synthesis and nature of electron donor are found to influence the shape, size and porosity of catalyst particles. This in turn has influence on resin characteristics. Furthermore, catalyst precursor characteristics are also found to play a role in the development of morphological characteristics of resin influencing flow ability also.