Preface

Better patient compliance, reduced adverse effects and more efficient delivery of active ingredients are primary goals of researchers and formulators, who have at their disposal an array of new drug delivery technologies to assist them with their work. The range of considerations in formulation and administration of the drugs is as diverse as population they target.

The oral route is the most dominant route for drug delivery. Amongst the various oral formulations for controlled drug delivery, the multiple-unit systems are gaining popularity and their market presence has increased many folds in the last several years.

Immense possibilities are being realised through the use of coated small particles and therefore research is directed towards increasing the number and variety of multiparticulate drug delivery system. Multiparticulates may require polymer coating for several reasons and such functional coatings can be possible through advances in polymer science and technology which results in accelerated research and developmental activity in the design of innumerable drug delivery devices. Polymeric excipients are commonly used for controlled-release formulations either as a coating around a drug core by microencapsulation or as a matrix in which the drug is embedded.

There is a huge array of polymers available for use in drug delivery systems ranging from hydrophilic ones to those that are hydrophobic. The use of polymers in drug delivery is as diverse as the polymers, which may be of natural, semi-synthetic or synthetic origin.

Coating of small particles requires sophisticated technologies. Special polymers for precise functions and refined processing conditions to achieve the desired product. Often formulation of polymer composition requires greater skill and understanding with regards to designing of superior coated multiparticulate drug product that elicits more consistent in vivo behaviour and thus better control of disease conditions.

The present study is a modest approach to explore some of the innumerable possibilities for coating of drug multiparticulates to achieve specific goals.