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Preparation and evaluation of diclofenac sodium orally disintegrating tablets

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Abstract. Orally disintegrating tablets (ODTs) are dosage forms which disintegrate in mouth within seconds without need of water. This type of quality in dosage form can be attained by addition of different varieties of excipients. Pharmaburst™ 500 is a co-processed excipient system which allows rapid disintegration and low adhesion to punches. The aim of the present study was to develop and evaluate 25 mg diclofenac sodium ODTs (orodispersible tablets) batches by direct compression method at different compression forces 10 kN (F1) and 20 kN (F2) and directly compressible excipients used in different ratio (Avicel PH 102, magnesium stearate and co-processed excipient Pharmaburst™ 500, 70% and 80% w/w). The obtained batches were analyzed for appearance, tablet thickness, uniformity of weight, hardness, friability, disintegration time, and non-compendial methods (wetting time). Co-processed Pharmaburst™ 500 excipient 70% used for sodium diclofenac ODT obtaining determined good results for quality control tests evaluation.

Keywords: orally disintegrating tablets, Pharmaburst™ 500, diclofenac sodium direct compression, quality control tests.

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