

## Ultrasonic Behavior of PP/PS Blends During Injection Molding

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Injection molding is one of the most important processes in the plastics industry. Most of the commercial blends through polymer injection molding process are immiscible, so they have multiphase systems and the resulting morphology affects most of the physical properties of end product. Characterization of the required morphology is commonly done off-line using optical or electron microscope. These techniques are not suitable for in-line industrial quality control, so it is necessary to develop nondestructive in-line or on-line techniques. Ultrasonic is non destructive and does not disturb the flow, and could be a very useful tool for controlling the droplet size of polymer blends during polymer processing. In this study, it will be showed to infer droplet size of blending material using on-line monitoring system in polymer injection molding processing.