

### 비뉴턴성 유체의 균일 코팅을 위한 코팅 다이 설계

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Slot coating, as one of pre-metered coating processes, is widely applied in the IT industries manufacturing secondary batteries and displays. One purpose of this study is to optimally design the internal slot die for guaranteeing the uniform velocity distribution of non-Newtonian coating liquids at slot die exit. Internal slot die could be quite well designed by revamping the chamber and slit geometries to acquire the coating uniformity. This study focused on the adaptation of 2nd chamber (its size and position in slit regime) and non-parallel changeable slit shape. Flow behavior of Carreau-type model liquids in slit regime has been theoretically examined by three-dimensional calculations via Fluent solver. Also, dynamics of stripe slot coating flow has been scrutinized by varying the shim geometry for maintaining uniform coating.