

Polypropylene resin composition for superior pelletizing stability and potential high melt index

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Melt-blown process is that it can make very fine filaments and produce very lightweight fabrics with excellent uniformity. The result is a soft fabric with excellent barrier properties, meaning effective filtration characteristics and resistance to penetration by aqueous liquids. This property is becoming vital in medical applications as concerns about blood-borne diseases increase. The disadvantage of melt-blown fabrics is that they are not high in strength, especially compared to spunbonded fabrics. Although melt-blown fabrics provide better barrier property, the optimum fabric is combination of spunbonded and melt-blown fabrics, spunbonded for strength and melt-blown for barrier properties, this is a widely used construction.

Commercial resin with MFR in the 400g/10min to 1500g/10min range but melt-blown grade is not easy to produce in petrochemical plant due to low melt-strength of high MFR resin which can make pelletizing problem. Honam Petrochemical Corp developed polypropylene resin composition for superior pelletizing stability and potential high melt index by using TEMPO derivative.