SAN(AS) RESIN PROCESSING CONDITIONS

- **Molding and Processing Method of TAIRISAN SAN:**
  TAIRISAN belongs to the class of transparent thermoplastic resin with good fluidity and moldability. It also possesses good dimension stability, good oil resistance, good vibration resistance, and good chemical stability. It is soluble in the ketone class of organic solvents. It has very little thermal decomposition, has melt viscosity slightly higher than GPPS, and extremely low molding shrinkage. As a result, the injection molding method can give products with excellent appearance and performance more easily than other molding methods.

  1. (DRYERING BEFORE PROCESSING) Pre-Drying Before Processing
     Pre-drying before the molding process is required to afford good molding products due to the slight absorption of water on the particle surface of TAIRISAN. Pre-drying at 80℃ for 4 hours in the oven with circulating hot air will provide complete dryness of the product.

  2. Molding
     Despite the excellent thermal stability of TAIRISAN, heating at a temperature above 250℃ should be avoided since the resin will turn yellow, deteriorate, and form silver lines.

  3. Molds
     Cracking of TAIRISAN easily occurs during the molding process of the product, therefore attention to the molding product design is required. The optimal draft angle should be greater than 2o and the mold should not have any subsided fraction. The melt viscosity of TAIRISAN resin is slightly higher than that of PS. The molding shrinkage of TAIRISAN is comparable to that of PS; therefore the mold for PS can be used for the injection molding of small molding products. In general, the sizes of the gate, the runner, and the sprue should be increased for better cooling effect. The mold temperature should be maintained between 50-70℃ during the molding process to produce products with good surface gloss and good performance.

- **Injection Molding**
  The standard injection molding conditions of TAIRISAN are as follows. The conditions may vary with the shape and the weight of the product and the capability of the molding machine.

CYLINDER TEMPERATURE	: 210~250℃
NOZZLE TEMPERATURE	: 210~250℃
INJECTION PRESSURE	: 700~1250 Kg/cm^2
MOLD TEMPERATURE	: 50~70℃

- **Extrusion Molding**
  TAIRISAN may be used for extrusion molding. The L/D value of the extruder should be above 16. Usually when the single screw model is used, the extruder can be operated at a cylinder temperature around 200℃.The condition may vary with the shape of the cross section, the thickness, and the width of the molding product as well as the specification of the molding machine.

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