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# BAMBERGER POLYMERS TECH TIPS

## Material Drying

### PA 6 and PA66

All nylons absorb moisture from their immediate environment and eventually reach a level equal with the relative humidity of the atmosphere. The rate of absorption depends on temperature and humidity. Under atmospheric conditions, virgin nylons absorb moisture slowly, with regrind and larger pellets absorbing faster than smaller pellets.

To prevent splay and other defects nylon materials must be molded with low moisture content to avoid splay and possible brittleness due to degradation.

Recommended moisture content for typical injection molding processes .08 - .13%

## Drying Conditions

Desiccant dryers require a 4-hr residence time. If you are processing 15 lb./hr, you need a 60-lb. drying hopper and a 15 cu-ft/min blower with two or more desiccant towers or rotating desiccant beds.

Some dryers monitor the weight of the material being used AND the temperature of the material. This eliminates over-drying.

Dry air conveying is recommended for central drying. This reduces the chance of the nylon picking up moisture again. Use a just-in-time loader on the machine to transfer the dry nylon from the dryer hopper to the processing machine.

Oven, or dehumidifying dryers are recommended. An air oven with recirculated, dehumidified air is recommended.

Temperature - 80°C (176°F)  
Time - 2-4 hours



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