

## GENERAL SPECIFICATIONS - GLOSSARY

1. **Density, g/cc, ASTM-D782A:** This test determines the material weight in grams per cubic centimeter, which means 1 cubic centimeter of our polypropylene resin would have an average weight of .9 grams.
2. **Notched IZOD Impact, ft-lbs./in., ASTM-D256-A:** This test determines the force used to break a sample of our polypropylene using a pendulum type hammer which is dropped from a standardized distance. A notch is milled into the sample to concentrate stress to that point which promotes a brittle fracture. The tests are reported in terms of energy absorbed per unit of yield or break.
3. **Tensile Strength at Yield, lbs./sq.in., ASTM-D638:** This test determines force taken to break/tear a polypropylene sample at a speed rate of 2 inches/minute and percentage of elongation at time of yield or break. It took 4000 lbs/square inch of force with 10% elongation at time of yield or break.
4. **Deflection Temperature, in Degrees, ASTM-D648:** This test determines at what temperature a polypropylene sample exhibits deformation with a specified force applied to the sample bridged across a test apparatus. The test uses a 66 psi load and a 264 psi load and determines deflection temperature at which point that the sample deforms .010 inch.
5. **Water Absorption, % in 24 hrs., ASTM-D570:** This test determines the relative rate of absorption of water by plastics when submersed for a 24-hour period. Samples are preconditioned (dried) before the test. The moisture content is very intimately related to such properties as electrical insulation resistance, dielectric losses, mechanical strength, appearance and dimensions.
6. **Coefficient of Linear Thermal Expansion,  $10^{-5}$  in./in./°F, ASTM-D696:** This test measures the change in length of a specimen under controlled conditions within a specified range of temperatures. The temperature ranges given were used and a calculation done to determine the coefficient linear expansion by multiplying the coefficient time  $10^{-5}$ , times the length of the sample (in.), times the difference in temperature change in Celsius.

**Important Note:** This technical bulletin supersedes all previous issues. All information contained herein are based on sources considered to be dependable, and is accurate and reliable to the best of our knowledge.