



ZEON CORPORATION

SPECIALTY PLASTICS DIVISION

1-6-2 Marunouchi, Chiyoda-ku TOKYO, 100-8246 JAPAN

Phone: +81-3-3216-1769

FAX: +81-3-3216-2334

Report No. MoldingGuideZNX330

ZEONEX® 330R Injection Molding Conditions (Quick Guidelines)

Pre-Drying (Heating):

Air (Oxygen) dissolved in ZEONEX330R pellets can cause discoloration, carbide and void, ZEONEX330R should be dried (heated) to remove air in the pellets for 4 to 12 hours at 80~100°C(176°F to 212°F) before molding. Drying too long period may cause heat deterioration and possibly discoloration in the molded articles.

Recommended purging cycle:

- (1) Pull the screw out of the barrel and clean the screw; check ring and barrel.
- (2) Purge with ZEONEX330R at 250°C/482°F for 10 injections, then at 290°C/554°F for 10 injections. This cycle can be modified per the application. It has been found that less material is wasted because of contamination by following this cycle than by using other purging methods.

For Optical Lenses: Barrel Zones 1 and 2 are typically 220 - 260°C (428 - 500°F)
 Mold temperature is typically 110-120°C (230 - 248°F)
 Cycle time is typically 60 - 300 sec. (long cooling) for small size
 Cycle time is typically 300 - 600 sec. (longer cooling) for large size

Typical molding conditions for ZEONEX 330R:

Mold	Clamp Face	Nozzle	Zone 1*	Zone 2	Zone 3	Throat**
110-120°C	110-120°C	240°C	250°C	245°C	235°C	220°C
230-248°F	230-248°F	464°F	482°F	473°F	455°F	428°F

* Remark: Zone 1 is typical example between 220 – 260°C (428 - 500°F) range.

** Remark: Under the hopper 50 - 90°C (122 - 194°F) are recommended if it can be controllable.

Injection speed, Holding pressure, Screw speed etc:

Injection & Holding pressure	Injection speed	Screw speed	Back pressure	Suckback position
Small size. 40~60Mpa	20~80 mm/sec.	20~80 r.p.m.	4 ~10 MPa	1~3 mm
Large size. 50~150MPa				
Small size. 5800~8700 psi	0.79~3.15 inch/sec		580~1450 psi	0.04~0.12 inch
Large size. 7200~22000 psi				

Nitrogen purging:

Nitrogen purge is recommended in barrel throat while molding to avoid oxidative degradation!!!
Please refer to ZEONEX Injection Molding Guide for more details.

The test results herein are believed to be accurate but are laboratory tests based on limited sampling, which do not necessarily simulate actual use conditions. NO REPRESENTATIONS, GUARANTEES OR WARRANTIES OF ANY KIND ARE MADE AND ZEON SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. ZEON shall not be liable for and the customer assumes all risk and liability for any use or handling of any material beyond ZEON's direct control.

A corporate brand "ZEON", a logotype "Z", "ZEONEX", and "ZEONOR" are the registered trademarks of ZEON CORPORATION.