[conditions for selecting the molding machine]

General)

① Requires high temperature setting (450 ° C Specification)

② It is preferable to select a molding machine having a maximum of 200 MPa or more.

③ Select a cylinder capacity that can be molded at least 20% of the maximum injection capacity.

④ To attach a heat insulating board to a mold mounting board or a mold of an injection molding machine.

cylinder, screw)

① High temperature specifications (400 ~ 420 ° C), corrosion resistance, and wear resistance are required.

② The compression ratio of the screw is preferably 2.0 ~ 2.3.

cylinder head, nozzle)

① The nozzle selects an open nozzle

② The head part uses an unattached check ring.

Dryer)

A hot air dryer capable of raising the temperature to 200 ° C is used. Dehumidifying dryer is also available.

[purge material]

purge material　Use PES, PEI

drying condition　180 ~ 200 ° C x 5 hours or more

Material drying temperature: 180 ° C - 200 ° C x 5 hours or more.
(It is common to put it in a dryer the day before work.)

Grade	Cylinder temperature (degrees C)		Mold temperature (degrees C)
	hopper side	center and nozzle	
Neat Grade	**390**	**400**	**170~180**
*Crystallization grade (PL 6200)	390	400	150~180
CF/GF fiber Grade	**390**	**420**	**190~200**
*crystallisation grade (JGN 6230, JCN 6230)	390	420	150~200

*Crystallization grade is a grade that is prone to sink marks in the following cases.
Lower the mold temperature or allow sufficient cooling time.

Note:Since the nozzle tip is in contact with the mold, the temperature is easily cooled, and the nozzle tip crystallizes.
Caution should be exercised as nozzle clogging may occur.
(Melting point: 388 ° C, Molding temperature: 400 ~ 420 ° C)
Measures: Wrap the nozzle with insulation (Glass wool, etc.).

◎AURUM™ Molding Guide 3 Condition Setting Example

◆Brand JCN 3030 (CF 30%)
◆Mold: ASTM Dumbbell (Thickness 3.2 mm)

Pre-drying the material: 200 ° C for at least 5 hours.

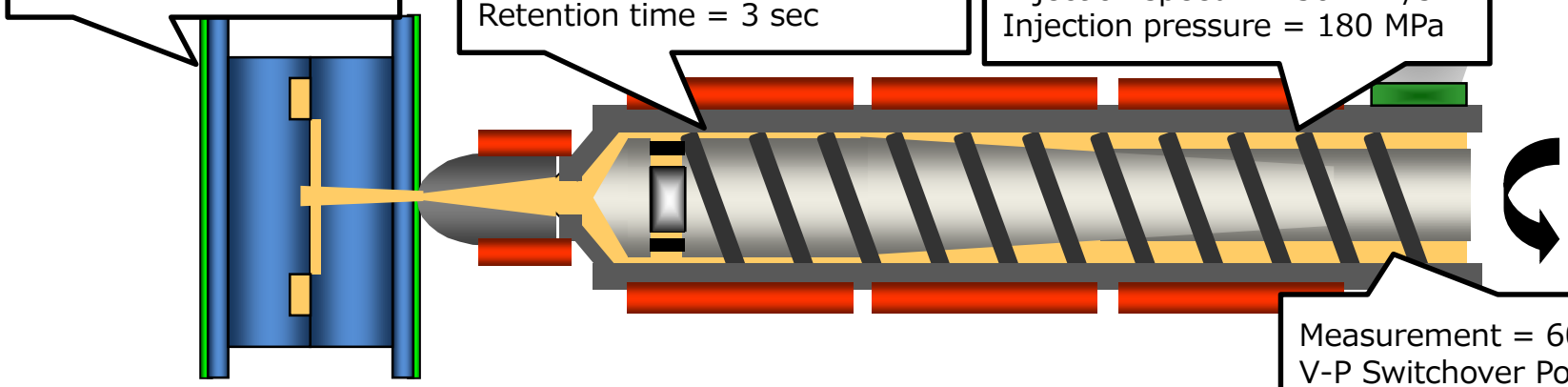
Machine used: SE 100 EV-C 250
Screw Diameter : φ 32
injection rate Size: 281 cm3/s
Maximum injection pressure — 217 MPa

Screw speed = 150 rpm
Back Pressure = 3 MPa

Cooling time = 30 sec

Retention pressure = 80 MPa
Retention time = 3 sec

Injection speed = 150 mm/s
Injection pressure = 180 MPa



Measurement = 60 mm
V-P Switchover Position = 6 mm