

BRAND NEW SUPPLEMENT FOR SMARTER INJECTION MOLDING!

Application Software for
Low Pressure Injection Molding
for Hybrid Machines

N-SAPLI



N-SAPLI

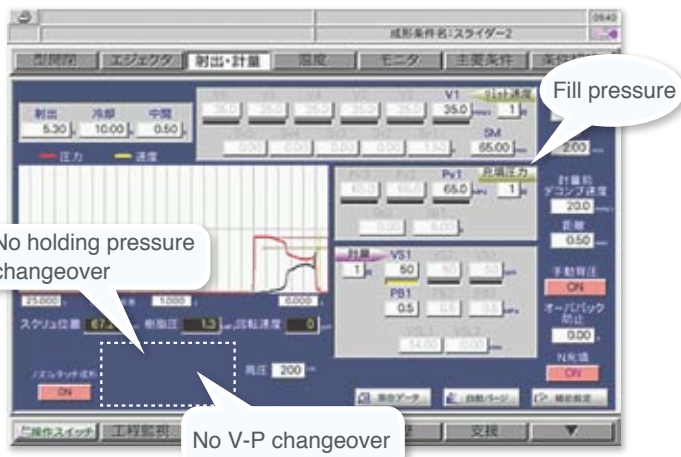
Low-Pressure Molding System for Hybrid Type
Infection Molding Machine



Shift from "High-Speed Injection, High-Pressure Injection, and High-Pressure Clamping"

to "Low-Speed Injection, and High-Pressure Low-Pressure Injection, and Low-Pressure Clamping"

▽ Simple controller screen



SAPLI Series is a low-pressure molding software application that brings profits by helping users to increase yield, reduce mold maintenance work, and lower running cost.

- SAPLI Series is... A supplement that materializes smarter injection molding.
 Smart Applications for PLastic Injection

Benefits of Implementing N-SAPLI

- Simplicity**
 - Simplify molding condition
 - Simplify quality management
- Shorten cycle**
 - Shorten injection (holding pressure) time
 - Shorten cooling time
- Increase yield and non-defective rate**
 - Facilitate gas release (reduce flash, warpage, sink mark, burn, and short shot)
- Reduce mold cost**
 - Reduce mold maintenance cost
 - Shorten mold making time

N-SAPLI Molding Examples

Example 1

Product: ribbed test piece
Resin: ABS

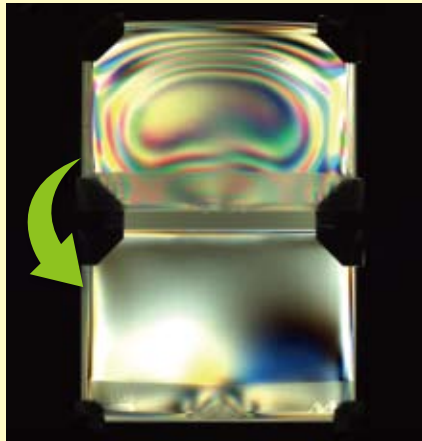


Clamping force: 40t → 20t
Injection pressure: 100MPa → 35MPa
V/P changer over: 7mm → **no V/P changeover**
Infection time: 8sec → **5 sec**
Cooling time: 35sec

Improve sink marks & shorten cycle

Example 2

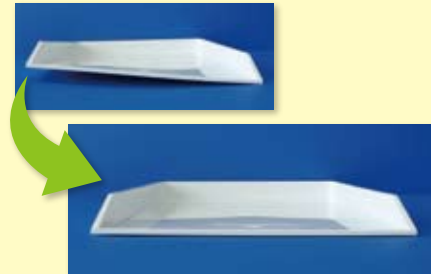
Product: low-stress precision lens
Material: PC



Lower residual stress

Example 3

Product: document tray
Resin: PS



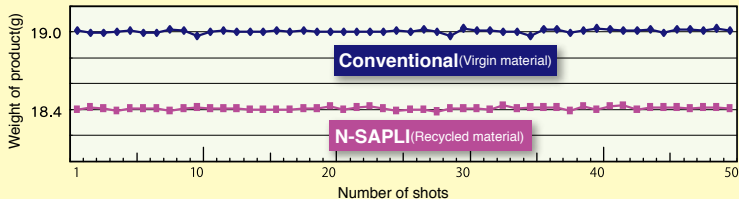
Clamping force: 180t → 86t
Injection pressure: 180MPa → 125MPa
V/P changer over: 10mm → **no V/P changeover**
Infection time: 7sec → **2.5 sec**
Cooling time: 15 sec → **8 sec**
Molding cycle: 28.5 sec → **17 sec**

Improve warpage and transfer surface

No Warpage and Sink Mark Meaning No Lengthy Pressure Holding Time Needed: Shortening the Cycle

In addition, it is tolerant to unstable factors (using regrind material) and external disturbance, improving yield!

Comparison of Conventional Condition & N-SAPLI



Even when 100% regrind material is used, N-SAPLI can achieve Purging Material Level of Stable Molding!

Product: ribbed test piece
Resin: ABS

	General	N-SAPLI
Ave(g)	19.0076	18.4084
Max(g)	19.0325	18.4316
Min(g)	18.9514	18.3820
Range(g)	0.0811	0.0496
SD	0.0125	0.0105
6CV	0.4264	0.3424

※6CV = $\frac{6 \cdot \sigma}{\bar{x}} \times 100(\%)$

It is safe even if 100% regrind material is used!

*This system is an optional feature.
*This system can be installed on to NISSEI TACT Controller equipped machines.
*NISSEI does not guarantee that N-SAPLI Series works for all types of mold and material.
*The specifications are subject to change due to performance upgrades.