

BRAND NEW SUPPLEMENT FOR SMARTER INJECTION MOLDING!

Low-Pressure Injection Molding
Application Software for Hybrid Machines

N-SAPLI



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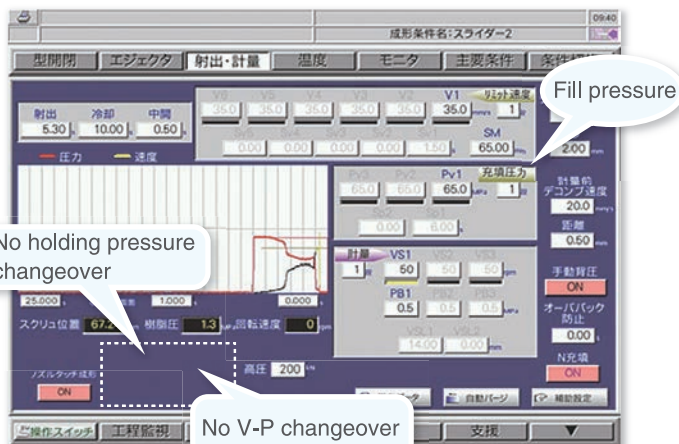
Low-Pressure Molding System for Hybrid Type Injection Molding Machine



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

to "Low-Speed Injection, 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)

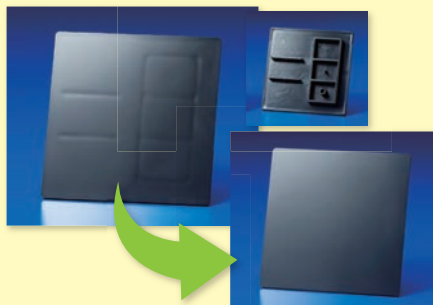
Reduce mold cost

- Reduce mold maintenance cost
- Shorten mold making time

N-SAPLI Molding Examples

Example 1

Product: ribbed test piece
Resin: ABS

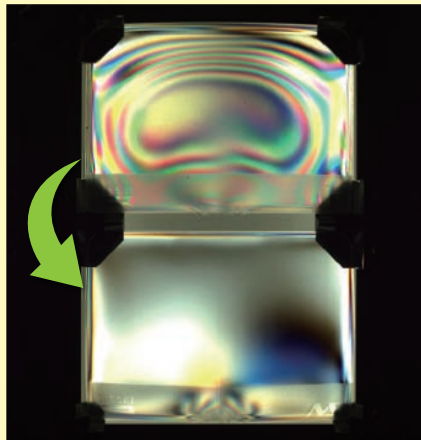


Clamping force: 40t ⇒ 20t
 Injection pressure: 100MPa ⇒ 35MPa
 V/P changer over: 7mm ⇒ no V/P changeover
 Injection time: 8sec ⇒ 5sec
 Cooling time: 35sec

Improve sink marks & shorten cycle

Example 2

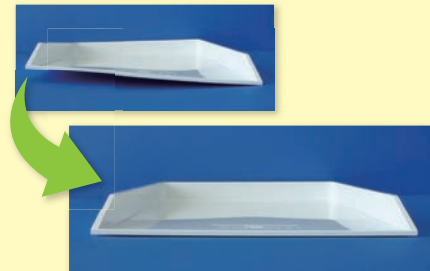
Product: low-stress precision lens
Resin: PC



Lower residual stress

Example 3

Product: document tray
Resin: PS



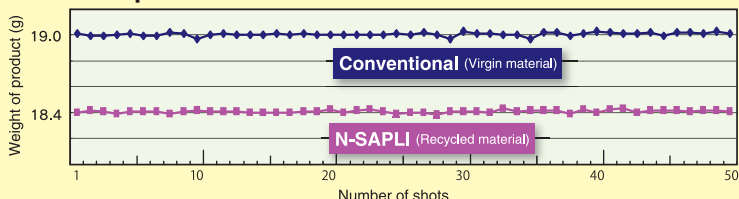
Clamping force: 180t ⇒ 86t
 Injection pressure: 180MPa ⇒ 125MPa
 V/P changer over: 10mm ⇒ no V/P changeover
 Injection time: 7sec ⇒ 2.5sec
 Cooling time: 15sec ⇒ 8sec
 Molding cycle: 28.5sec ⇒ 17sec

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 Virgin 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 = $\frac{6 \times \sigma}{\bar{x}} \times 100(\%)$

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.

Specifications are subject to change without notice due to continuous performance improvement.