

# DSP RX045 SERIES

The insert forming is often applied for making industrial products, especially such as home appliance and inner panel (dashboard) for cars.

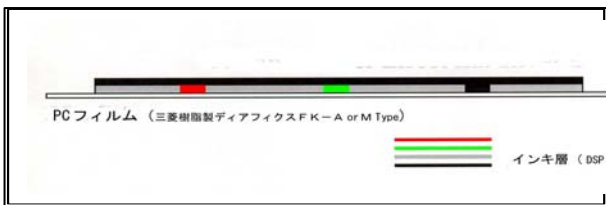
This process creates various products designed for excellent durable performance.



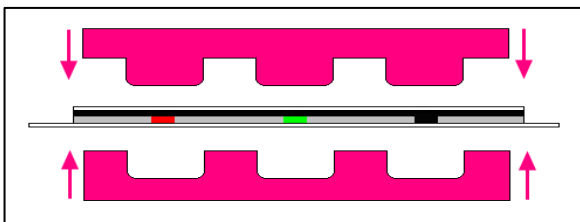
example : mobile phone key pad

## 1. Insert Forming

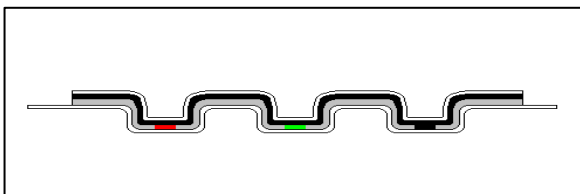
Insert forming process for making key pad is shown as under.



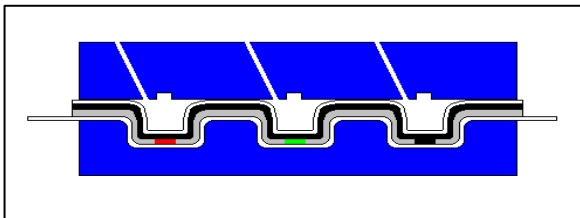
1) screen printing



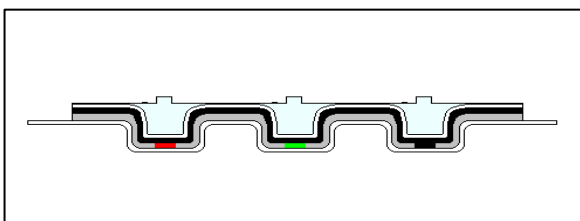
2) embossing



3) cutting · processing



4) molding



5) completion

## 2. The Feature of DSP RX045

DSP RX045 can produce flexible printed film suitable for insert process and will largely save the consumption of ink in comparison with other two-part reaction ink.

Ink type	: Air-drying one-part ink based on polyester
Finish	: Semi-matte
Diluent	: T-945 (standard solvent)
Washup	: T-15
Mesh	: 200~300 mesh/inch fabric made from polyester or nylon are recommended
Air-drying	: 80 min. at 20°C (set to touch in 20 min. at 20°C)
Forced-drying	: 60 min. at 60°C (set to touch in 10 min. at 60°C) 30 min. at 80°C (set to touch in 1 min. at 80°C)

Notes: Viscosity should be adjusted according to the printing condition as it has a tendency to be affected by seasonal fluctuation and only the designated solvent T-945 is strongly recommended for diluent.

## 3. Test condition for making film key pad of mobile phone

Substrate	: PC film (Mitsubishi Resin Ltd-made Diafix FK-A) "Diafix FK-A" produced by Mitsubishi Resin Ltd.
Apparatus	: Semi-automatic screen printing press
Drying	: IR jet dryer and box dryer

\*IR forced jet dryer for overlap printed layer and set to touch

Drying 6~7 min. at 90°C is recommended for solid printed layer, 3 min. at 90°C is recommended for each overlap printed layer and put them on the rack after the said drying process.

\*Box dryer

Drying 40 min. at 80°C by using box dryer is recommended for drying the printed matters following the said IR forced drying process..

Forming condition	: Press forming with □ die at 90°C
(Example)	: Press forming with ▢ die at 75~80°C *Injecting resin = PC *Injecting resin temperature = 250°C

## 4. Precaution for Insert Forming

\*Polycarbonate resin injected will give good adhesion on DS RX045 printed surface, so any binder will not be required.

\*However, a binder to promote the good adhesion will be required for the injecting resins like ABS, AS and Acrylics.