

# HIPAK® Glass Release Coating

**HIPAK** glass release coating is a durable solid film lubricant used on the glass-contacting surfaces of forming machine tooling. It is sprayed on rings, blanks, baffles, moulds, bottom plates, plungers, thimbles, and funnels before installation on the glass-forming machine.

This **waterbase** material consists of special binders and high temperature release agents. The resultant solid coating is smooth and abrasion resistant. ***Molten glass does not adhere to the coating, resulting in a container that has an excellent, contamination free finish.***

An improvement in the percent pack can often be realized as a result of a reduction in ware loss due to less frequent swabbing.

There are also benefits in cycle life of the forming machine tooling; since less swabbing compound is applied, tooling can be used for a longer period of time before replacement.

**Economic Benefits**

- Improves percent pack.
- Longer tool life.
- Reduces tooling turnover.
- Reduces swab material.
- Tools are easier to clean.
- Improves wall uniformity.
- Swab cycle up to 10 times longer.
- Improves mould temperature distribution.
- Eliminates tool polishing.
- Higher internal bottle pressures.
- Not an acid. Does not attack tooling or equipment as some pre-coats do.

**Additional Benefits**

- Less than 30 minutes to apply, cure and install on I.S. machine.
- Inhibits rusting during storage.
- 1-year shelf life for coated tooling and coating chemical.
- Can be used on tools cleaned by electroetch caustic solution or shot peening.
- Permits operator to perform other functions besides swabbing.

**Safety and Health Benefits**

- Less operator inhalation of smoke and oil fumes.
- Less operator exposure to moving machinery, noise and heat.
- Waterbase coating system, not acid or silicone.
- Less in-plant pollution.

**Typical Applications**

# HIPAK® Glass Release Coating (cont'd)

- 10,12,& 16 oz. N.R. soft drink, crown top
- 1 ltr , 1 qt. amber beer, Alcoa top
- 32 oz. soft drink, Alcoa top
- Glass capsules and perfume flasks
- 4/5 & Quart liquor bottle
- Pint wide-mouth jar
- Quart wide-mouth jar
- One gallon wine bottle
- Schweppes bottle
- 'Mae West' type bottle
- One liter fruit juice bottle
- Two liter fruit juice bottle
- 750ml & liter wine bottle

## Experiences of a One Year Study

- Average pack increase of 2% on variety of containers.
- Mould, baffles, bottom plates and funnel life, 3-5 days with no swabbing.
- Ring life of 3-5 days: Crown finish swabbed on 60-120 minute cycles
- Alcoa finish swabbed on 30-60 minute cycles.
- Blank life of 3-5 days swabbed on 1-4 hour cycles.

## Ease of Use

Before coating, the forming machine tooling is sandblasted or glass peened, but need not be polished. The coating is applied on room temperature tooling with a conventional spray gun. Application should only be done in a spray booth. After coating, the parts may be air dried at room temperature or during the normal pre-heating of the tooling. For best results, the coated parts should be heated to above 150°C for 20 to 30 minutes. The desired coating thickness is 0.0005 to 0.002 inches (.013 to .051 mm).

**HIPAK** remains effective for approximately 24 hours without swabbing. Coating life can be extended 3 to 5 days by periodic, light swabbing with most non-smoking or oil based swabbing compounds. Although HIPAK bonds firmly in normal use, a misapplied or damaged coating may be removed with water and re-applied.

After coating the tooling avoid contact with water, such as that from shear spray or delivery chutes.

## Bonus: Burst Pressure Increased with HIPAK Coated Moulds

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