

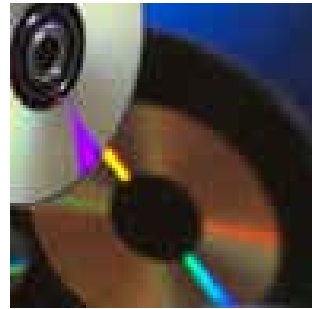


PI 4220 DISCOAT

Water based, Temporary, Protective, Peelable, Coating for Optical Media, Silicon Wafers, Glass, Photo masks, Platter, Optical Discs

1. INTRODUCTION:

Water based **PI 4220** is the international standard for protecting of optical Media such as CD and video discs during manufacturing process as well as archiving protection. **PI 4220** is very easy way to apply strippable coating for the protection of substrates from scratching and marring. **PI 4220** is useful for substrate protection during polishing, handling and long-term storage. **PI 4220** is impregnated with transparent blue dye for easy visual inspection as well as identification and is non-staining and stable to 100 degrees Celsius.



PI 4220 is a clear water-resistant, water based peelable temporary protective coating for optical media which provides a long lasting durable protective layer that protects form scratches and oxidation. **PI 4220** air-dries quickly, leaving a tough, yet flexible coating that is easily removed and requires no other additional step.

PI 4220 represents the ultimate in water-based removable coating technology. It is stabilized against brittleness and is not softened or penetrated by most water-based compounds

2. PHYSICAL CHARACTERISTICS

Colour	Blue
Weight	8.6 lbs/gallon
Viscosity	100 cps/77 degrees Fahrenheit
Flashpoint	None

3. APPLICATION

PI 4220 is applied directly to the stamper surface by spin coating. It can be applied to water wet substrates after electroforming providing immediate protection form oxidation. **PI 4220** is opaque while wet, however it dries to clear transparent film for visibility.

PI 4220 should be used as received. Airless spray, spinning, roll coating, or dipping applies it. The sprayed coating dries to touch in 10 minutes or less, depending on temperature and film thickness. **PI 4220** should be applied to form a dry film in the range of 100 to 300 microns thick. Application temperature is ambient to no lower than 50 F, as drying times will be affected.

Spin coating: apply coating to centre of substrate (quantity determined by size of area to be coated). Use a minimum of 300 RPM for approximately one minute to achieve one mil dry film thickness. Lower spinning speeds will require longer (in excess of 10 minutes) drying time.

4. CURING

PI 4220 will cure tack-free within 10 minutes after application. This is dependent upon temperature, humidity and thickness of coating. Deviations from application section will require adjustments in the curing times, as well as in the strip ability parameters. During curing process **PI 4220** removes water from the metal substrate & helps eliminate under-coating oxidation by capillary action.

Curing may be accelerated by force drying at 45 deg C for 3 to 7 minutes.

It is imperative that **PI 4220** be thoroughly cured and dry, with no tackiness before an attempt is made to strip the coating from the substrate. Substrates should not be stored in airtight containers until the **PI 4220** is



completely cured.

5. STORAGE

PI 4220 should be stored in the original shipping container with temperatures between 60 and 90 degrees F, in indoor environment. Containers should be sealed until needed. Protection from freezing is necessary.

6. REMOVAL

PI 4220 is readily removed from surfaces by peeling. **PI 4220** Is water based and performs equal or better to traditional solvent based peelable coatings for optical media. It removes surface contaminants upon peeling of film.

Performance statements are based upon representative experience from testing Worldwide; however, actual performance will be determined by substrate selection and preparation, exposure conditions, and maintenance of the marking.