General Chemical Corp.

DISCCOAT 4220

Water Based Temporary Protective Peelable Coating For optical Media ,Silicon Wafers, Glass, Photo masks, Platter, Optical Disc

Water based Disccoat 4220 is the international standard for protecting of optical Media such as CD and video discs during manufacturing process as well as archiving protection. 4220 is very easy way to apply strippable coating for the protection of substrates from scratching and marring. 4220 is useful for substrate protection during polishing, handling and long-term storage. 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.

Features:

- Water based with no v.o.c and non hazardous
- Eliminates under coating oxidation
- Comparable performance to solvent based optical Media Peelable coatings.
- Works well for In-process and archiving on all optical media formats
- Easy to remove and no clean up required

Introduction: General Chemical's Disccoat 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. Disccoat 4220 air-dries quickly, leaving a tough, yet flexible coating that is easily removed and requires no other additional step. 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.

Application:
Disccoat 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. 4220 is opaque while wet, however it dries to clear transparent film for visibility. 4220 should be used as received. It is applied by airless spray, spinning, roll coating, or dipping. The sprayed coating dries to touch in 10 minutes or less, depending on temperature and film thickness. 4220 should be applied to form a dry film in the range of 3 to 4 mil (.003" to .004") thick. Application temperature is ambient to no lower than 50 F, as drying times will be affected. Spin coating: apply coating to center 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.

Curing:
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 Disccoat 4220 removes water from the metal substrate & helps eliminate under-coating oxidation by capillary action. Curing may be accelerated by forced drying at 110 degrees Fahrenheit for 3 to 7 minutes. It is imperative that 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 4220 is completely cured.

Storage:
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.

Removal:
4220is readily removed from surfaces by peeling. 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.

Physical characteristics:
Color: Blue Tint
Weight: 8.6 lbs/gallon
Viscosity: 100 cps/77 degrees Fahrenheit
Flashpoint: None