

SHREE



## Orion Photosensitive Systems

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### Method of Use

Diazo 214 Based Ready to Use  
**Freedom Plus ONE PACK**

**UV CtCP Diazo Polymer**

**Orion Diazo Polymer**

**Freedom Plus CtCP - ONE PACK**

**Open in Yellow Safe Light Only**

**This product is already esterified with suitable Cresol Resin. Hence there is no need to add any additional Cresol Resin.**

### Method of Use

We have not Pre Dissolved any colorant dye in the powder.

**Preparation of Solution for testing.**

The Diazo Compound -Freedom Plus – ONE PACK will dissolve in any of the following solvents. Combination of solvents is to be decided by you.

- 1) Ethyl Cello solve 2) Dowanol- PGMA 3) MEK 4) Acetone 5) Ethyl Ether. (Dowanol) is Registered Trademark of DOW
- 2) We Recommend use of MEK or Acetone in 7% to 15% of Ethyl Cello solve or Dowanol-PGMA to get full solubility of product.**

First prepare a solution containing about 20% solids. Once the solids are fully dissolved, add Colorant Dye Solution.

Generally used Colorant Dyes

### **Victoria Blue BO or Crystal Violet**

Colorant dye should be dissolved separately in any solvent from above list and then Pre Dissolved in stock solution of Diazo polymer.

Standard process of filtration of liquid should be followed.

### **Coating on Aluminium Substrate.**

Aluminium substrate should be 1) Electro Chemically Grained 2) Apodised 3) Treated for hole filling procedure (Post Anodic Treatment)

Prepared solution should be coated on Aluminium substrate by suitable method.

Coating dry weight should be 1.7 to 1.8 grams per square meter, or as per your requirement.

Plate should be dried by hot air of suitable temperature.

### **Self-Curing of coating.**

Coated Aluminium substrate should be stored in cool and dark place. Storage room temperature should be 27 to 31 Degrees Centigrade.

Self-Curing period. Minimum 24 Hours. Thicker coating weight requires more self-curing time.

### **Exposing of coated substrate**

Coated and cured plates should be exposed on Exposing devices popular in the industry.

Ultraviolet Laser Radiation- Spectral Sensitivity 365 nm to 405 nm

Energy-50 mj to 60 mj Per Square Centimeter (Only indicative)

Rip- Positive Matrix

Safe Light- Yellow

### **Developing of coated substrate**

Developer- Suitable for Positive UV CtCP Plates.

Developer Temperature -23 Degrees Centigrade.

Processor speed- As per Dip Length in developer tank and residual life of developer.

Dip Time – 20 Seconds to 25 Seconds or more.

**Note.**

The results depend upon

- 1) **Coating Weight per Square Meter**
- 2) **Aluminium Substrate Condition- and Post Anodic Treatment (PAT)**
- 3) **Drying Temperature and Dwell time in oven tunnel.**

## **Other Variation of ORION FREEDOM PLUS ONE PACK.**

**This Product is supplied in 4 Variations to suit different Requirements of Customers.**

- 1) **ORION FREDDOM PLUS -ONE PACK**-Supplied as Dry Powder customer should Dissolve in solvents of his choice and as per his requirements. (Blue Dye powder is supplied with main product )
- 2) **ORION FREDDOM PLUS -ONE PACK (30% Solution)** -Supplied as a 30% solids solution for Use on 3 Roll Reverse Roll or Forward Roll Coater. (Colour is Pre-Dissolved.)
- 3) **ORION FREDDOM PLUS -ONE PACK (12 % Solution)** -Supplied as a 12% solids solution for use on Slot Die coater -This % can be changed to customers requirements. Combination of solvents can be changed as per customers requirements. To suit coating weight and Line Speed, drying time and Temperature in oven, (Colour is pre-dissolved)
- 4) **ORION FREDDOM PLUS -ONE PACK-RTU**-Supplied as (7 % to 8% ) solids solution for use on Whirler Coating process. This product is suitable for Printers who want to make their own coated plates by coating Ball Grained Plates on whirler. (RTU- Ready to Use) (Colour is pre-dissolved)