



# PDC® F-861 LIQUID POWDER

## FOR INDUSTRIAL USE ONLY

### DESCRIPTION:

F-861 Liquid Powder is a high quality, vinyl concentrate, dry blend replacement. It's used to manufacture (mix) vinyl paint used to spray or dip coat martial arts gear, pool floats, wrestling mats, medical products, novelty items, etc.

The term Liquid Powder refers to the liquid concentrate form, which our F-861 is packaged in. Its' advantages are less space for storage (450lb drums vs 350lb drums for dry blends), mix time is cut up to 50%, easier to handle (easy pour or pump liquid), no "caking" or compacting, no "leaching" of ingredients into container when stored and most of all, because of its unique manufacturing process, it remains consistent from batch to batch. Not only is our formula's consistency superior, our colorant quality and consistency are superior as well. **PLASTI DIP INTERNATIONAL uses no heavy metal (lead/chrome) colorants in any of its products** and uses only the highest quality ingredients to ensure you product consistency. Finally, a product you can rely on batch after batch. The strength, elongation, abrasion and UV resistance, as well as cosmetic appearance, you expect. The service and quality you deserve.

### OTHER FEATURES INCLUDE:

Wide selection of colors.	Available in clear
Fastest turn around time in the industry.	Color matching service
Passes UL94 HBF	UL Accepted for life vests

**Does not cause artifacts in imaging applications**

### SPECIFICATIONS:

Concentrate (wt/gal): approx. 9#	Tensile: (ASTM-D 412) 1,958 psi
Temperature use range: -30°F to 200°F	Elongation: (ASTM-D 412) 421%
Block resistance: 4hr @ 140°F 1 hour	Finish: gloss
Weatherability: [ASTM G-53] excellent (10-mil film)	Shelf life: 1+ years at 77°F unopened conatiner

### Chemical resistance: In House Test Results [ASTM D-1308]

Mineral oil:	very good	Machine Oil:	very good
Saline:	very good	Blood:	very good
Urea (6% in H2O):	very good	All purpose cleaner:	very good
Betadiene (Iodine):	*very good	Acid (10% sulfuric in H2O):	very good
Gasoline:	good	Alcohol:	very good

\*stained after 5 minutes.

### ALTERNATIVE PRODUCTS:

For bonding of vinyl nitrile type foams, see VYNA BOND technical data sheet. For high gloss top coat, see F-760 technical data sheet. For ready to use vinyl paint, see F-818 technical data sheet.

We cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be used. We accept no responsibility for results obtained by the applications of this information or the safety and suitability of our products, either alone or in combination with other product combination for their own purposes. Unless otherwise agreed in writing, we sell the products without warranty, and buyers and users assume all responsibility and liability for loss or damage arising from the handling and use of our products whether used alone or in combination with other products. Ever changing V.O.C. regulations in your area may require you to contact local authorities for proper use and/or disposal of this product. Should you need further assistance, please contact PLASTI DIP INTERNATIONAL technical service.

**GENERAL PRODUCT INFORMATION:** Vinyl paint is produced by addition of F-861 Liquid Powder to a solvent blend, mixing and heating.

M.E.K.	40 – 60
Toluene	40 – 60
MIBK or Xylene	Up to 20%

For a lower V.O.C. solvent system using Acetone, contact technical service for formulation assistance.

**F-861 LIQUID POWDER MIX INSTRUCTIONS:**

**Separation may occur during storage; to ensure product quality and consistency, thorough agitation is recommended using an air/ explosion proof electric drum mixer, circulation pump or hand agitator *before each use*. Please contact PLASTI DIP INTERNATIONAL if you do not have a hand agitator and need one.**

1. Add solvent blend to mix tank and begin low rpm mixing and heating of solvent.
2. When solvents reach 90-110 f add F-861 Liquid Powder slowly making sure to increase rpm to prevent F-861 from dropping out.
3. Bring solution to minimum 150 to maximum **160°F**. When solution reaches chosen temp, remove from heat source and mixer at once and allow to cool before use.
4. For faster mixing and use of finished vinyl paint you may withhold upto 25% of the solvent blend and add after vinyl paint has reached chosen temperature. Make sure to remove or shut off heat source and keep under agitation for an additional 2 minutes to ensure all solvents have mixed into solution completely.

**QUALITY CONTROL RECOMMENDATIONS:**

1. If desired viscosity range needs to be adjusted, **do not** add solvent before doing the following first:
  - A. Remix (shear) vinyl paint for 5 – 10 minutes before use each day. \*(Using proper mixing equipment)
  - B. Check temperature of vinyl paint. Ideal use range is 80-105°F.
  - C. Check viscosity. Ideal viscosity range is 11 – 18 seconds #3 Zahn Cup for dipping 20-30 second for spraying.
  - D. Make necessary solvent adjustments. \*(Use of proper mixing equipment will improve flow and greatly reduce the need for solvent additions.)
2. Avoid overheating vinyl paint. Heating the vinyl paint above 160°F will cause excessive solvent evaporation, inconsistent viscosity and possible moisture condensation in mix tank.
3. **IMPORTANT:** Do not add F-861 Liquid Powder to already mixed and cooled vinyl paint. Any F-861 Liquid Powder addition would require **reheating** to 150°F and remixing.

**HINTS:**

**Surface preparation:** All surfaces to be coated must be free of any oils, dust or loose foam particles.

**\*Recommended mixing equipment:** Contact technical service for assistance.

**Vinyl paints will coagulate during storage.** Vinyl paint must be re-dispersed, mixed or agitated vigorously before use each day. If viscosity is too high even after resheering or not flowing off part properly, dilute with a 1 to 1 ratio of MEK and Toluene until a satisfactory range is met or contact technical service for further assistance. Filtering of paint may be beneficial.

**For information regarding formulating, processing, application and development, or for information regarding lower V.O.C. solvent formulations, contact PLASTI DIP INTERNATIONAL technical service.**