



Liquid Paint

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Prepared by : Adisakdi Ch.

Product Category	<ul style="list-style-type: none"> ● Functional Additives for Liquid Paints ● Filter Bags for Liquid Paints ● OEM Contracts for Commodity and Specialty Liquid Paints
Application	<ul style="list-style-type: none"> ● Decorative Paints ● Industrial Paints ● Specialty Paints
Key Function(s)	<ul style="list-style-type: none"> ● Improved properties for liquid paints ● Cost reduction program for liquid paints ● OEM partner for liquid paints

Liquid paint comes in a variety of forms, including acrylic, enamel, or urethanes, and can be water- or solvent-based. They are used for painting surfaces that require high resistance or well protection against chemical agents, abrasions, and impacts. In fact, they are widely used in the industrial, household, automotive, heavy industrial, and agricultural sectors.

Water- or Solvent-Based: Different Compositions of Liquid Paints

Liquid industrial paints may be water or solvent based. Depending on their composition, they have different characteristics and application techniques.

Solvent-based liquid paint, also known as oil-based or alkyd paint, is a type of paint where the primary vehicle or solvent is an organic compound, usually a petroleum-derived product like turpentine, mineral spirits, or other volatile solvents. These paints are often used for their durability, smooth finish, and resistance to wear and moisture.

Water-based liquid paint, also known as **latex paint** or **acrylic paint**, is a type of paint where water is used as the primary solvent or vehicle. It is widely used for both interior and exterior applications due to its ease of use, quick drying time, and lower environmental impact.



Few Examples of Liquid Paint Types

Liquid paint comes in many types, based on different binder systems such as, just a few, acrylic, enamel, and urethanes. It can be water- or solvent-based, and it can dry through air curing, baking process, or a chemical catalyst (2K or 2-component system).

1. **Acrylic Liquid paint** : Acrylic liquid paint, also known as fluid acrylic paint, is a highly pigmented paint with a consistency similar to heavy cream. It is thinner than heavy body acrylic paint, but has the same amount of pigment.

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- **Composition:** A mixture of non-volatile components (binders, additives, pigments, fillers) and a volatile component (solvent)
- **Drying:** Dries through exposure to air or a chemical catalyst
- **Application:** Can be sprayed on, poured on, or the object can be immersed in it
- **Uses:** Ideal for plastics, composites, aluminum, and other metal components
- **Advantages:** Can be applied in thin layers, resulting in a smoother finish
- **Disadvantages:** Not as durable as powder coats, but usually less expensive



2. **Enamel :** Liquid Enamel Painting : Liquid painting is a treatment for surface metals relying on a spray gun. The coating is sprayed on the surface in one or more layers depending on the type of liquid enamel used and the goals of the painting (primer, finish, intermediate layer). Industrial liquid paint may be applied to all types of metals and it has a high elastic resistance to impacts, chemical substances, and fire (for certain types of paint), as well as high corrosion protection.

Types of Liquid Enamel Painting

Epoxy Resin Enamels

This type of paint is the ideal choice for protecting metal surfaces from chemical agents due to the high corrosion protection. The coating is very hard and difficult to scratch, making it resistant to water and impacts. It can be used as a finish, primer, or intermediate layer.

Polyurethane Enamels

Oil based, this type of painting is suitable for both metals and plastic. It has a shiny finish and offers excellent resistance to solar radiation.

Polyaspartic Enamels

With a higher quality than the other types of enamels just mentioned, this solution is applied by highly specialized personnel. The paint is applied in a single layer and dries very quickly. The advantage is an increase in productivity due to its faster application and drying.

High-Temperature Liquid Enamels

Used for particular needs, high-temperature liquid enamels are ceramic paints developed precisely to resist solvents, thermal shocks, and very intense heat on the order of hundreds or thousands of degrees. As for corrosion resistance, the high-temperature paint is better compared to other coating methods. Ideal for coating mechanical parts such as heater, car, and motorcycle parts (mufflers, manifolds, exhaust pipes) exposed to very high temperatures or the action of chemical substances, oils, and benzene, high-temperature paint is a decorative, functional choice that guarantees high-impact, long-lasting performance.

Liquid Electrostatic Painting

Electrostatic painting is a technique that yields quality results with notable paint savings compared to classical treatments, along with a reduced environmental impact because the enamels are free of solvents. It also creates a perfectly uniform layer without drips. With industrial electrostatic painting, known internationally as e-coat, the surface is coated with a film of electrically deposited resin. The particles of liquid paint are charged electrostatically, nebulized, and sprayed onto the material with an opposite charge by means of a spray gun. The force of compressed air and opposite charge therefore work on the particles of paint simultaneously.

3. **Urethanes :** Urethane liquid paint, also known as polyurethane (PU) paint or PU coating, is a durable, liquid plastic that dries into a paint-like film. It's a reaction polymer made from a polyol resin and an isocyanate hardener.
 - Urethane paint is a popular choice for many applications because of its:
 - Durability: It's resistant to chemicals, water, abrasion, and temperature.
 - UV resistance: It helps prevent fading and degradation.
 - Gloss: It can be formulated to higher gloss levels, which can improve self-cleaning.
 - Easy application: It's quick and easy to apply.

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Urethane paint is used in many industries, including:

Marine: It's popular in the marine industry.

Aerospace: Water-based polyurethane coatings are used on the exterior of aircraft to protect against the elements.

Industrial: It's often used in industrial workplaces because of its superior elasticity, abrasion resistance, and temperature tolerance.

Architectural: It's used in architectural coating systems.

Woodworking: It's used for cabinetry, trim, and doors.

Urethane paint has a longer curing period than epoxy, but it results in a more durable and long-lasting finish.

The Advantages of Liquid Painting

Liquid paint has various characteristics that make it the ideal solution for coating metal and plastic surfaces.

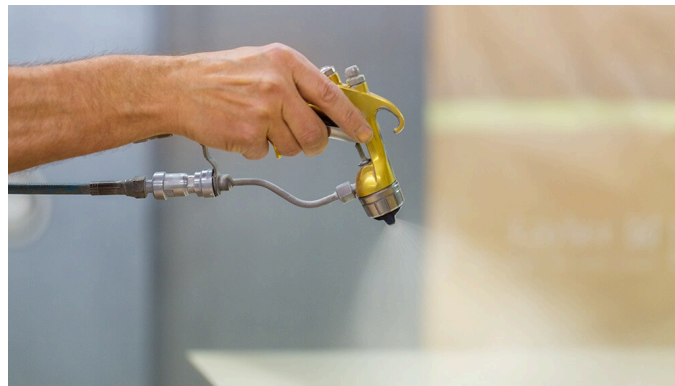
Precision: Application of the liquid paint with a spray gun guarantees high precision, reducing the drying time.

Minor pretreatment: Even if it is always necessary to degrease and rinse the surface, this process is easier with liquid paints than with powder paints.

Excellent finish: The spray gun also ensures an excellent appearance due to the uniform distribution of the enamel, which also creates a resistant protective layer. Micro bubbles are also avoided, which are responsible for lower effectiveness of the paint.

High adaptability to surfaces: Some liquid enamels can be dried without placing the parts in the oven, because they require lower temperatures to dry. The surfaces on which these coatings are applied therefore do not necessarily require a high temperature resistance. The problem of possible damage to more heat-sensitive parts is therefore resolved.

There are many ways and options while elaborating in Liquid Paint Arena with Stellar Unity. Stellar Unity has collaborated with local paint manufacturers who could be your partners in producing liquid paint products under your brands. Moreover, Stellar Unity has promoted different functional additives for your liquid paint products with cost reduction program or improved properties.



For more information of product



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