



Technical Data Sheet for Water-Based Enamel

Product Description

Water-Based Enamel is an eco-friendly, high-performance paint that combines the durability and smooth finish of traditional enamel paints with the benefits of water-based technology. It is formulated using a synthetic resin binder, which ensures excellent adhesion, scratch resistance, and long-lasting color retention. The paint dries quickly and is ideal for both interior and exterior applications, providing a durable, glossy, and protective finish.

Unlike solvent-based enamels, Water-Based Enamel is low in volatile organic compounds (VOCs), making it safer for both the user and the environment. It produces fewer fumes, and cleaning can be done with soap and water, eliminating the need for harsh solvents. The enamel is perfect for both residential and commercial applications, providing a smooth, high-gloss finish with excellent color consistency and durability over time.

This versatile enamel is resistant to wear, moisture, and weather conditions, making it suitable for a wide range of substrates, including wood, metal, and masonry. It is commonly used on surfaces such as doors, window frames, cabinets, furniture, metal surfaces, and other high-traffic areas. Water-Based Enamel offers a professional finish without the strong odors or the extended drying times often associated with oil-based products.

Recommended Use

Water-Based Enamel is perfect for various applications across residential, commercial, and industrial sectors:

- Wood Surfaces:**
 - This enamel is ideal for wooden furniture, doors, windows, and trim. It enhances the natural beauty of wood, providing a durable finish that resists moisture, stains, and wear. It is commonly used on cabinets, paneling, and trim work in homes and offices.
- Metal Surfaces:**
 - Water-Based Enamel provides excellent adhesion and protection for metal surfaces, including gates, fences, railings, and equipment. It is resistant to rust and corrosion, ensuring that metal structures maintain their appearance and integrity.
- Masonry & Concrete:**
 - This enamel is well-suited for masonry, concrete floors, and walls. It protects these surfaces from moisture, dirt, and wear while offering a smooth and glossy finish. It can be used for both indoor and outdoor masonry applications.
- Exterior Surfaces:**
 - With its ability to withstand harsh weather conditions, Water-Based Enamel is ideal for exterior use on surfaces such as fences, garden furniture, metal doors, and window frames. It protects against rain, sun, and temperature fluctuations, ensuring that the finish lasts longer.
- Industrial & Commercial Use:**
 - The durability and protective qualities of Water-Based Enamel make it ideal for industrial equipment, storage tanks, machinery, and other commercial applications that require a tough, weather-resistant finish.
- Decorative & Craft Use:**



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J-896, Matsya Industrial Area, Alwar, Rajasthan - 301030
Email: support@spakslube.com | Website: www.spakslube.com

- It is also popular in decorative applications, where a high-gloss finish is required. It can be applied to crafts, art projects, and ornamental surfaces to achieve a smooth, polished look.

Technical Data

- **Colour:** Available in a wide range of colors, including custom shades
- **Finish:** Gloss, Satin, or Matte
- **Viscosity:** 60-80 KU (Krebs Units) at 25°C
- **Gloss:** $\geq 80\%$ (measured at a 60° angle for high gloss)
- **Flash Point:** Non-flammable
- **True Pigments:** Titanium dioxide, organic pigments, and inorganic colorants
- **Binder Solid:** 40-45%
- **Volume Solid:** 35-40%
- **Recommended Dry Film Thickness (DFT):** 25-30 microns per coat
- **Covering Capacity (Brushing):** 12-14 m²/L per coat (depending on surface texture)
- **Thickness (DFT):** 2-3 coats recommended for optimal durability
- **Drying Time:**
 - **Touch Dry:** 30-60 minutes
 - **Recoating Time:** 2-4 hours
 - **Fully Cured:** 24-48 hours

Dosage & Addition

- **Dosage:**
 - Apply 1-2 coats, depending on the surface type and desired finish. Ensure that the first coat is dry before applying a second coat to avoid streaks or runs.
- **Addition:**
 - For airless spray applications, thin the product with water as necessary (up to 10%). Stir well before use to ensure the consistency and color uniformity of the paint.

Method of Application

1. **Surface Preparation:**
 - Ensure that the surface is clean, dry, and free from dust, grease, or oil. Sand smooth any rough areas and remove loose or flaking paint from previously painted surfaces.
 - For metal surfaces, remove rust or oxidation with a wire brush or sandpaper. For wood, ensure it is dry, and sand if necessary to remove imperfections.
 - On masonry or concrete surfaces, wash and prepare the area for optimal paint adhesion.
2. **Mixing:**
 - Stir the Water-Based Enamel thoroughly before application to ensure that the pigment and binder are evenly distributed.
3. **Application:**
 - **Brush:** Use a high-quality synthetic bristle brush for small and detailed areas. Apply in thin, even layers to avoid brush strokes and runs.
 - **Roller:** For larger, flat surfaces, use a foam or woven roller to ensure even coverage. Work in sections to prevent the paint from drying unevenly.
 - **Spray:** For professional applications, use an airless spray system to achieve a smooth, uniform finish. Maintain a consistent distance from the surface and apply light, even coats.
4. **Drying & Recoating:**



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- Allow the first coat to dry for 2-4 hours before applying a second coat. Ensure that each layer is completely dry before recoating to avoid imperfections in the finish.
- Full curing is achieved in 24-48 hours, depending on the thickness of the coating and ambient temperature.

Safety Instructions

- **Personal Protection:**
 - Wear protective gloves, goggles, and a dust mask when applying Water-Based Enamel to avoid skin irritation and inhalation of dust.
 - Ensure that the workspace is well-ventilated, particularly in enclosed areas, to avoid prolonged exposure to fumes.
- **Fire and Explosion Hazard:**
 - Water-Based Enamel is non-flammable, but care should still be taken to avoid spilling or splashing on flammable materials. Store the product in a cool, dry location away from direct sunlight.
- **First Aid Measures:**
 - **Skin Contact:** Wash immediately with soap and water. If irritation persists, seek medical attention.
 - **Eye Contact:** Rinse eyes with clean water for at least 15 minutes. If irritation continues, seek medical attention.
 - **Inhalation:** Move to fresh air immediately if dizziness or difficulty breathing occurs. If symptoms persist, seek medical help.
 - **Ingestion:** Do not induce vomiting. Rinse the mouth and seek immediate medical attention.
- **Disposal:**
 - Dispose of unused paint and containers in accordance with local waste disposal regulations. Avoid disposing of paint down drains or in water sources.

By adhering to these safety measures, users can ensure a safe and successful application of Water-Based Enamel while achieving a high-quality, durable finish.