FASTRACK™ 5408A Emulsion for Waterborne Traffic Marking Paints

Regional Product Availability

- Global

Description

FASTRACK™ 5408A Emulsion is a new generation of all-acrylic emulsion for fast-dry waterborne traffic marking paints with improved durability. Traffic marking paints based on FASTRACK™ 5408A Emulsion feature fast dry over a broad range of application conditions and excellent durability in terms of retention of glass beads for night visibility and wear properties over asphalt, concrete, and old markings.

Advantages

Features and Benefits of Traffic Paints Based on FASTRACK™ 5408A Emulsion

- Improved Durability–Exceptional wear properties over various bituminous and concrete road surfaces
- Fast Dry–Fast dry-to-no-pickup and resistance to early rain showers under a wide range of climatic conditions
- Enhanced Retention of Glass Beads–Excellent long-term night visibility
- Environmentally Friendly– formulated V.O.C.s from 50-100 grams/liter
- User Friendly–Non-flammable, water clean-up, can reduce disposal costs, can increase worker safety
- Technology that extends the striping window to include paint application temperatures down to 35°F (and rising)

Properties

Typical Properties

(These properties are typical but do not constitute specifications).	
Class	ACRYLIC
Solids (%)	50%
Density Dry (lb/gal)	9.24
Density Wet (lb/gal)	8.77
pH	10.3
Viscosity (cps)	<500

Performance Advantages

Conventional waterborne films that exhibit enough surface dry to help prevent the paint from being “picked-up” and tracked onto the road by traffic, may not be dry under the surface film. Waterborne traffic paints need to reach a surface dry and "dry-through" stage before they begin to withstand an early rain shower.

Drying Performance

FASTRACK™ 5408A Emulsion, like other FASTRACK™ Emulsions, will dry faster to "no pick-up" and "dry-through" than conventional waterborne polymers. The faster dry is particularly evident when the drying conditions are poor (high humidity, low air flow and temperatures). Furthermore, fast "dry-through" characteristics of waterborne traffic markings based on FASTRACK™ 5408A can make them much more resistant to damage from an early rain shower than those based on conventional waterborne polymers.

Durability

The service life of traffic markings also depends on the marking having good wear properties. In road tests using transverse test lines to accelerate wear, waterborne markings based on FASTRACK™ 5408A Emulsion have shown excellent durability over both asphalt and concrete road surfaces in a variety of climates. FASTRACK™ 5408A has improved wear characteristics compared to FASTRACK™ 3427 and FASTRACK™ 2706.

Glass Bead Retention

The visibility of traffic markings at night requires retention of the glass beads applied to that marking. Night visibility can be monitored with a retroreflectometer that measures the low angle reflectance of light off the beaded marking.

The following data (based on Fast Dry White Traffic Paint Formulation TP-08A-1) compare the loss of retroreflectivity of white waterborne traffic markings based on FASTRACK™ 5408A Emulsion with FASTRACK™ 3427. Note that the waterborne fast-dry markings based on FASTRACK™ 5408A retain their retroreflectance (hold onto reflective glass beads) considerably longer than the leading maintenance binder FASTRACK™ 3427.

Pennsylvania Concrete Test Deck Retention

Transverse Line Accelerated Wear after 1 year – 12,000 ADT* in lane

*average daily traffic (number of vehicles)

Polymer	FASTRACK™ 5408A	FASTRACK™ 3427
Edge Retroreflectance	245.5	59.5
Wheel Track Retroreflectance	131.5	21.0
Wheel Track Presence	80%	15%

Applications, Conditions and Handling

FASTRACK™ 5408A Emulsion can be applied with airless, air-assisted, or conventional air-spray equipment to asphalt, concrete, or existing road markings that are adhering well to the pavement surface. Air and surface temperature should be above 35°F and at least 5°F above the dew point during application. Paints will require longer drying times when the relative humidity exceeds 80% with minimal air flow.

Clean-up is accomplished with clean or soapy water to remove wet paint from equipment. Stainless steel equipment should be used, and typical paint solvents can assist if removal of dried paint from tools and equipment is necessary. All solvents and solventborne paint should be removed from tanks and spray equipment prior to handling waterborne paints to avoid contamination, and equipment should be cleaned after each use. An ammonia solution can be floated on the surface of stored paint to prevent skinning.

Safe Handling Information

Dow Material Safety Data Sheets (MSDS) contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products.

Under the OSHA Hazard Communication Standard, workers must have access to and understand MSDS on all hazardous substances to which they are exposed. Thus, it is important that you provide appropriate training and information to your employees and make sure they have available to them MSDS on any hazardous products in their workplace.

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