



LineSTIL® AQUA (WATER BASED)

Product Description

LineSTIL® Aqua is in the category of Water-Based Road Marking Paint which made of new generation pure acrylic polymer, high solids, single component, fast drying, high strength, modified pure acrylic resin. These types of paints are perfect for applications where traffic flow needs to be provided as soon as possible. It provides excellent day and night visibility due to its strong adhesion, excellent durability, abrasion resistance and the absence of organic solvents that cause bitumen bleed on asphalt surfaces. It presents much lower human health risks and adverse environmental effects than equivalent solvent-based products used on roads. Harmful Volatile Components (VOC emissions) can be reduced by up to 90% and the carbon footprint by up to 50%. LineSTIL® Aqua Water Based Road Marking Paint is a road marking solution that combines excellent performance at low thickness. LineSTIL Aqua Road Marking Paint is designed to be used on asphalt, bituminous roads and concrete surfaces. It can also be used for airports marking as it is to create road lines, traffic signs and border lines. Also its visibility can be increased by glass beads dropped on it.

LineSTIL® Aqua Road Marking Paint is formulated to meet the requirements of TCK General Directorate Highways Technical Specification, TS EN 1871 and TS EN 1436 standards.



ALL RAL COLORS ARE AVAILABLE

LINESTIL® AQUA ROAD MARKING PAINT



Characteristics

*Excellent adhesion. *Mechanical and chemical resistance. *Resistant to harsh weather conditions and abrasion.*High UV resistance *100% pure acrylic resin with exceptional durability *Provides fast drying, better durability, better color retention *High covering and reflective properties. *It does not contain volatile organic solvents harmful to the environment and human health. *Thanks to its high strength, it preserves its reflective power, color and film thickness for a long time under heavy traffic. *Hydrophobic surface with self-cleaning feature. *Thanks to the fastest drying time among road marking paints (Appropriate air temperature, surface temperature, humidity environment), it is of higher quality than other solvent paints. After the application, the application area can be opened to traffic depending on the drying times according to the surface temperatures specified in TABLE 1 below. *Bitumen bleeding does not occur on asphalt surfaces. *Easy to apply with all marking machines and spray equipment, even at high ambient temperatures.

Surface Preparation Information

LineSTIL® Aqua Road Paint performance varies depending on the preparation level of the surface to be applied. The application surface must be clean, dry, dust-free, free from oil and other surface residues and loose materials by means of compressed air, broom, vacuum cleaner, water jet, etc. All auxiliary equipment for surface cleaning should be available before application. The surface to be applied must not be wet. Centerline or edgeline pre-marking on newly built asphalt roads should be pre-marked at points on the road using string, chalk or any pre-marking method. The road surface on which the application will be made must be above 5 °C.

Application Equipment

It is recommended to apply with professional hand application teams. It can be successfully applied with airless or air assist spray application equipment. Appropriate film thickness is created by changing the desired line width and film thickness, height of the spray gun, nozzle diameter, air pressure and driving speed. It can be successfully applied by brush or roller for small applications.



Spray



Brush



Roller



Airless
Spray
Machines

Application Surface

It is designed for use on asphalt, bituminous roads and concrete surfaces.



Weather Condition

For a correct application ; ambient temperature, substrate temperature, humidity and subsequent application is very important in weather conditions Always check the weather forecast and do not start the application if heavy rain is expected within 2 hours. Application ambient temperature should be the range of 5 °C and 40 °C. After a homogeneous mixture is prepared, it is applied with the help of suitable equipment for the surface. The main parameters that will affect the drying time are low air temperature, low ground temperature, high relative humidity, dew and also rain. According to the ambient temperature and relative humidity 50% specified in the table below, the application area can be opened to traffic, taking into account the drying times.

		Temperature			
		<10 °C	10-20 °C	20-40 °C	>40 °C
RELATIVE HUMIDTY	20-50%		10-20 minutes	5-15 minutes	
	50-80%		15-30 min	10-25 minutes	
	80-90%		30-60 min	25-45 min	

TABLE 1

Paint Selection and Safety

It is important to use only the recommended or specified paint for each application. Avoid keeping and storing indoors and outdoors for long periods as much as possible. To avoid spills, risk of fire and evaporation of volatile organic compounds, ensure that the lids are tightly closed when transporting containers or storing products. Keep paints away from heat and flame. Please use suitable protective equipment, gloves and mask. Consult MSDS and/or product labels for further safety procedures.

Application Condition

AQUA	Temperature	10 - 40 °C
	Humidity	Min 20%-Max 90%
	Drying Time	20-25 min (23 °C temp. & 50-80% humidity)

Paint Preparation

Before application, it is mixed with a mixer until it reaches a homogeneous consistency. The paint is made ready for application. It is recommended to practice with a professional team.

Caution: It is recommended that the process be carried out in an open and well ventilated environment in order to avoid sparking due to the electric mixer used..



Excellent Adhesion



Excellent Durability



High Chemical Resistance



High UV Resistance



Quick Drying

Product and Glass Beads Usage Amounts

Wet Film Thickness [μ]	Dry Film Thickness [μ]	Consumption [kg/m ²]
125	80	0,20
156	100	0,24
234	150	0,37
273	175	0,43
312	200	0,49
468	300	0,73
600	385	0,92

Note: The values given in the table are theoretical values. Consumption amount may vary depending on the application surface and ambient condition.

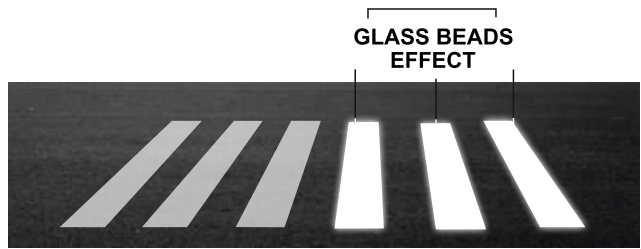
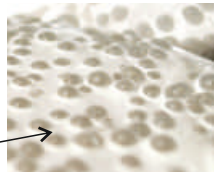
Glass Beads (TS EN 1423)	Ratio	Consumption
	360 g/m ²	400 g/m ²

Day & Night Visibility

Night Visibility: Thanks to the glass beads', in different sizes on the road marking paints, retro-reflective action at night a vehicle's headlight beam is returned to the driver's eyes which results in a "light-up effect" of the stripe and creates a Night visibility. This is a decisive plus for road safety. Visibility in road marking paint of the glass beads increases according to the embedding degree / size, amount and quality.

Daylight Visibility: The contrast between the coating and the pigmentation of the marking material allows the stripes to be seen clearly in daylight conditions.

Proper Embedment
%50 - %70



Physical Properties	COLOR	WHITE	YELLOW
	VISCOSITY (DANIEL)	80-95 KU	80-95 KU
	DENSITY	1,60 g/ml $\pm$ 0,10	1,60 g/ml $\pm$ 0,10
	LIGHTING CLASS / BRIGHTNESS FACTOR	LF7 / $\beta \geq 0,85$	LF2 / $\beta \geq 0,50$
	AMOUNT OF SOLID MATERIAL	%75 $\pm$ 2	%75 $\pm$ 2

The Difference Classes in Luminosity Factor After UV Aging Test		
COLOR	CLASS	$\Delta\beta$
WHITE, YELLOW	UV-1	$\leq 0,05$

The Difference Classes in Luminosity Factor After Bleeding Resistance Test		
COLOR	CLASS	$\Delta\beta$
WHITE, YELLOW	BR-1	$\leq 0,03$

Application Areas



Asphalt Roads



Airports



Car Parks



Crosswalks



Industrial Areas

Waste Procedure

All regulations regarding the transportation, storage and disposal of all hazardous materials and wastes should be followed carefully. Paint pail and related materials should be insulated in accordance with the required waste regulations. Otherwise, it may result in penalties specified in the legal regulations. Please follow all regulations and minimize the excessive usage as possible.

Storage

Store between 10 °C and 30 °C in closed areas keeping away from direct sunlight. The storage area should be adequately ventilated to prevent moisture build-up. The storage area should be adequately ventilated to prevent moisture build-up. The lid should be tightly closed when the paint pail is not used. The shelf life of LineSTIL® Aqua Road Marking Paint is minimum 1 year in its original packaging and under suitable storage conditions.

Important Information

The information given in this data sheet is not intended to be comprehensive and may not be used for any purpose other than that specifically recommended on this sheet without our written approval as to the suitability of the product for its intended use. Otherwise, it is entirely user's own responsibility. As conditions of use, application method and surface suitability during painting are out of our control. The recommendations contained herein do not make any guarantees. The recommendations contained herein do not give any guarantee. Therefore, we accept no responsibility whatsoever for any loss or damage caused by the performance or the use of this product. The information on this data sheet is obliged to make changes from time to time in the light of experience and ongoing product development programs. It is the user's responsibility to ensure that this page is up-to-date before using the product.

Note: These data have been tested under lab conditions in the R&D department of Stil Trafik İşaretleri San. Ve Tic. A.Ş. Our company cannot be held responsible for any direct, indirect, special and consequential losses and damages that may arise from relying on this information and its use.

Advantages of LineStil Aqua Column And Curb Water Based Road Marking Paint compared to traditional solvent based marking paints:

- Provides better glass beads retention, providing more retro reflectivity / night vision.
- It is not flammable.
- Increased worker safety - exposure to volatile organic solvents is greatly reduced,
- Extended whiteness and daytime visibility,
- By replacing solvent-based paints, VOC emissions can be reduced by up to 90% and carbon footprint by up to 50%.
- Water-based paints are not as harmful to the environment as solvent-based paints.
- It can paint more m2 per liter with water-based road marking paint.
- Can be used for application with airless or airmix technology.
- Provides perfect day and night appearance, as bitumen bleeds does not occur on asphalt surfaces.
- Water and a brush are sufficient for cleaning the application equipment.
- When the application is combined with the use of suitable glass beads, it has very good reflective properties even at low thicknesses.

Packaging

LineSTIL® Acrylic Road Marking Paint is produced in 25 kg metal cans as standard and also can be produced in 180 kg barrels and 1000 kg IBC packages upon request.



Merkez / Head Office: Kaptan Paşa Mah. Halit Ziya Türkan Sok.
No: 19 / 13 Famas Plaza C Blok Kat: 7 34384 Şişli - İstanbul

+90 212 491 01 44

+90 212 293 85 15

Fabrika / Factory: Köseler Köyü Mah. Kuyubaşı Sk.
No:2/3 TR- 41455 Dilovası - Kocaeli / TÜRKİYE

info@stiltrafik.com

www.stiltrafik.com