

PLASTILINE® 1C Waterborne TOUGH MARK

EXTERIOR | **WATER BASED** | **1K**

Description:

A one component, water based, adhesion promoted, high solids, self-crosslinking pure acrylic road marking paint with quick-set technology offering rapid drying, and fast return to service. PLASTILINE® 1C Waterborne TOUGH MARK provides excellent road performance with low VOC emissions and a smooth matt finish.

Intended Uses:

PLASTILINE® 1C Waterborne TOUGH MARK has been formulated as a high solid's, economical waterborne road marking paint designed for marking traffic areas in low speed or high-speed environments. Once dry, this product stays flexible providing superior durability on road surfaces where there is expansion & contraction due to temperature variations.

PLASTILINE® 1C Waterborne TOUGH MARK is suitable for the marking of highways, local roads, intersections, crosswalks, landing strips and parking lots with or without reflective glass beads. The coating forms a durable, dirt resistant finish with enhanced glass bead embedment and retention properties, and outstanding adhesion directly to asphalt, correctly primed concrete roads or paved surfaces.

Additionally, PLASTILINE® 1C Waterborne TOUGH MARK can be applied in cooler, humid, or coastal environments where conventional waterborne coatings typically struggle. It delivers rapid drying and excellent film hardness even under these challenging conditions.

Its outstanding hardness, durability, and environmental compatibility make it one of the most economical and eco-friendly options in its class.

Features & Benefits:

- Excellent Adhesion – Bonds strongly to asphalt, primed concrete & paved surfaces.
- Superior Glass Bead Embedment & Retention – Resin technology holds glass beads better, providing long lasting retro-reflective results.
- Self-Crosslinking Pure Acrylic Technology – Delivers outstanding film hardness, adhesion and long-term durability.
- Environmental & Applicator Friendly – Low VOC, waterborne systems with minimal odour and reduced environmental impact. Easy clean up using water.
- Tough & Flexible – Resists abrasion, tyre marking and wear.
- Less Sensitive To The Cold & Moisture – Can be used in cooler, humid & coastal environments.

Technical Data:

Colour	Available in white, yellow, red & black. (Colour complies with SANS 731-2 in accordance with BS 381 C.) This product is also available in any RAL colour upon request.
Luminance factor (reflectivity) of white paint	> 80%
Viscosity	115 ± 10 KU
Hiding Power - Applied @ 200µm gap clearance & tested to SANS 2814	> 95% for White > 90% for Yellow
Finish	Smooth matt 85° Specular Gloss of not > 30%
Density (approx.)	1.76 Kg/ Litre (Typical for white)
Mass Solids	78%

TRAFFIC MARKINGS: ROAD MARKING PAINTS

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Latest Update:
17/10/2025
Issue Date:
17/10/2025

Volume Solids	60%		
Typical Film Thickness & Coverage (On flat surfaces)	350µm – 500µm WFT (Wet Film Thickness) 210µm – 300µm DFT (Dry Film Thickness) 0.35 Lt to 0.5 Lt/ m ²		
Method of Application	Airless or air atomizing equipment		
Number of Coats	1 coat by spray		
Pack Size	5, 20 & 210 Litre Drums		
Application Temperature	10°C to 40°C		
Drying Time vs Humidity vs Temperature	Relative Humidity	Air Temperature	
		10 – 20°C	20 – 40°C
	20 – 50%	10 – 20 min	5 – 15 min
	50 – 80%	15 – 30 min	10 – 25 min
	80 – 90%	30 – 60 min	20 – 45 min
Specification Compliance	EN 1436, EN 1871 and SANS 731/2:2015 Type 1 Class 2 Single Pack Waterborne Paints – machine spray application		
Drying-Time Classification: ASTM D 711 - Classified no pick-up time of paints (380µm WFT) shall be:	Class 1: 15 Minutes max		
Resistance to Sagging 375µm	500µm		
Drop on Reflective Glass Beads* Applied minimum 500gm/m ²	PLASTILINE® Reflective Glass Beads EXTRA 125-850 AP PLASTILINE® Reflective Glass Beads EXTRA 125-850 UC		
Shelf Life	12 Months from date of manufacture		
Tariff Code	HS32091090		

*Only used glass beads that have been tested and deemed suitable for application. An embedment of 50 – 60% glass beads is optimal to achieve good adhesion and retro reflectivity.

Application equipment & methods should be adjusted to optimize the applied product.

*Selecting the correct bead will enhance the total durability of the road marking system, always consider the diameter of the bead being used with the thickness of the coating to be applied. The paint thickness should not be less than 50% of the diameter of the smallest glass bead.

Important Information:

- Always consider a test patch to check suitability & adhesion.
- Always consult with technical department if unsure.
- Upon opening the drum, you will notice a Float Solution on top of the paint, this is to prevent skinning. Due to evaporation a skin develops, this skin must not be re-stirred into the paint. To help prevent surface skinning, pour a small amount of clean drinking water on top of the paint.
- Before starting project, check weather forecasts. Ensure that application is not conducted if rain is forecasted within 24 hours, or if the area has not experienced a minimum of 48 hours of dry, clear weather following rainfall.
- Technical and application data herein is for the purpose of establishing a general guideline of the coating application procedures.
- Test performance results were obtained in a controlled laboratory environment and Specialized Coating Systems makes no claim that the exhibited published test results, or any other tests, accurately represent results found in all field environments. As application, environmental and design factors can vary, due care should be exercised in the selection and verification of the performance and use of the coating.

Surface Preparation:

Bituminous / Asphalt:

Premature application to newly laid surfaces can impact the performance & quality of the product. Newly laid bituminous/asphalt surfaces need to cure for 4 – 6 weeks prior to applying a coating system. Existing chemical additives on the surface of new bituminous/asphalt surfaces such as flux oils & oleiferous separating agents for steel rollers will be detrimental to the adhesion of subsequent coats and can cause discolouration. A test piece should

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always be applied, and if any negative results are obtained, the surface should be allowed to weather for an additional 1 to 2 weeks

Bituminous/asphalt surfaces must be thoroughly swept prior to the application of a marking system to ensure the removal of all dirt, dust, and contaminants that could compromise the adhesion and performance of the marking system.

Concrete / Cement / Paving:

Premature application to newly laid surfaces can impact the performance & quality of the product. Newly laid concrete surfaces need to cure for 4 – 6 weeks prior to applying a coating system. This will provide enough time for excess moisture to leave the substrate & allow excess alkalinity to leach out which can cause blistering, delamination or premature failure of the coating. A test piece should always be applied, and if any negative results are obtained, the surface should be allowed to weather for an additional 1 to 2 weeks.

Surface components that impair adhesion, such as fine mortar layers, concrete slurries & curing compounds must be removed by suitable mechanical methods such as high-pressure cleaning, grinding or blast cleaning. All dust must be removed properly using an industrial vacuum cleaner. The moisture content (CM-method) of the concrete / cementitious subfloor must be: < 3 – 4 %, < 0.2% Anhydrite, < 2 – 4 % Magnesite before markings can be applied.

The mechanical strength of the subfloor should be: Compression Strength $\geq$ 25 MPa; Tensile Strength > 1.5 MPa. Resp. ASTM C39 & C1583.

Concrete, cement or paving surfaces should always be primed prior to the application of a marking system. Ensure that the surface is completely wetted with primer to ensure optimal adhesion of the road paint.

The consumption of the primer depends entirely on the porosity of the concrete. The primer should have sufficient time for the water/solvent to evaporate prior to final application of the road paint which is generally around 30 minutes @ 25°C. Generally, once the primed surface is no longer sticky to the touch it is ideal for the application of road paint.

Application:

Mixing	Stir well with a flat-bottomed paddle or mechanical mixer for a few minutes		
Application Tools	Airless or air atomizing equipment		
Application Area	Application Type:		
	Spreading Rate	0.35 Lt to 0.5 Lt/ m² per coat	
	Recommended WFT (per coat)	Min 350µm	Max 500µm
	Recommended DFT (per coat)	Min 210µm	Max 300µm
	Number of Coats	1 coat	
	Extra Information: -		
Thinner	Supplied ready for use (Do not dilute)		
Clean Up & Work Stoppage	• Stop marking before tank is empty, keeping lines full of paint. This prevents air from entering the system. Immediately flush guns with clean water. • Leave paint in tanks during work stoppage & remove any skins after each day. Pour a small amount of Float Solution/Clean Drinking Water on top of the paint to prevent surface skinning. • Check for skins in tanks before starting each day. • Keep system closed when it sits overnight. If system is airless, ensure pump pressure is off. • If system has been idle, flush with ammoniated water. • Use only clean water for flushing/washing. • Carefully remove & clean air caps & nozzles with water using a nylon brush. • Never allow paint to dry through lines/on guns & tips. If the paint dries through, cleaning with MEK/Acetone will soften the paint enough for removal.		

Systems:

Consult with Specialized Coating System for application specific recommendations.

Safety Information:

- Refer to product SDS for health & safety prior to using products.
- Always wear safety clothing / protection. Respirators, eye protection and skin protection.
- Apply in well-ventilated areas.

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