

PLASTILINE® MMA Cold Plastic Cycle Grip

Solvent-free, two-component MMA cycle lane anti-skid surfacing — factory-pigmented to RAL Traffic Colour and pre-blended with medium reflective glass + silica aggregate

Description

PLASTILINE® MMA Cold Plastic Cycle Grip is the medium-grade pre-blended anti-skid surfacing in the PLASTILINE® MMA Cold Plastic family. Supplied as a single-pack 1-Layer system — factory-pigmented to a customer-specified RAL Traffic Colour and pre-blended with PLASTILINE® Cycle Grit Blend (reflective crushed glass + hard silica anti-skid aggregate, 600 - 1200 µm) ready to mix on site with PLASTILINE® MMA BP Hardener Powder.

Engineered specifically for cyclists. The medium-grade pre-blended aggregate delivers measurable wet-weather grip without compromising rider comfort, while integral reflective crushed glass enhances cycle-lane visibility under headlights and street lighting at night. Delivers Initial SRV ≥ 60 BPN on the finished surface (per TMH1 B2 / EN 13036-4 pendulum).

Two-pack site-mixed system: Comp. A (pre-pigmented, pre-aggregated MMA Cycle Grip) + Comp. B (PLASTILINE® MMA BP Hardener Powder). No on-site pigmentation, no on-site aggregate broadcast — all done in factory.

Intended Uses

Application	Configuration / Notes
Dedicated cycle lanes (urban, suburban, rural)	1-Layer pre-mixed application
Separated bicycle paths and Class 1 trail networks	Coloured cycle priority
Shared-use paths (pedestrian + cyclist)	Balanced grip / comfort profile
BRT corridors with bicycle shoulders	Continuous coloured surfacing
School zones with cycle priority	Factory-pigmented RAL Traffic Colour
Routes requiring retroreflective enhancement under street lighting	Built-in reflective crushed glass

Features & Benefits

Feature	Benefit
100% Solids	Solvent-free, < 5 g/L VOC, no shrinkage on cure
Rapid Cure	Hardens in ~30 min at 25 °C — trafficable within 1 hour
Long Service Life	5 - 10+ years on high-traffic surfaces
UV Stable	Colourfast pigments retain colour outdoors
Permanently Elastic	Accommodates substrate movement without cracking
Cold-Weather Apply	Cures down to 10 °C ambient
Bitumen-Compatible	No bleed-through on fresh asphalt substrates
Hydrophobic Surface	Self-cleaning — reduces dirt retention
Anti-Blackening Compatible	Optional topcoat extends dirt-pickup resistance, rejects tyre rubber and bitumen, preserves colour contrast
Single-Pack Pre-Mixed	Factory pre-blended — only Comp. B BP Hardener Powder is added on site at point of use

TRAFFIC MARKINGS: COLD PLASTIC MARKINGS

Whilst we endeavour to ensure that all advice we give about the product is correct, the information given in this data sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so entirely at his own risk. As conditions of use, method of application and suitability of the substrate prior to painting are beyond our control, no guarantee is implied by the recommendations contained herein. We therefore do not accept any liability whatsoever or howsoever arising from the performance of this product or for any loss or damage arising out of the use of this product. The information contained in this sheet is liable to modification from time to time in the light of experience and ongoing product development programmes. It is the user's responsibility to ensure that this sheet is current prior to using the product

Technical Data

Property	Specification										
Colour	Standard range: <table border="1"> <tr> <td>Traffic White — RAL 9016</td><td>Traffic Black — RAL 9017</td></tr> <tr> <td>Traffic Yellow — RAL 1023</td><td>Traffic Orange — RAL 2009</td></tr> <tr> <td>Traffic Red — RAL 3020</td><td>Traffic Purple — RAL 4006</td></tr> <tr> <td>Traffic Blue — RAL 5017</td><td>Traffic Green — RAL 6024</td></tr> <tr> <td>Traffic Grey A — RAL 7042</td><td>Traffic Grey B — RAL 7043</td></tr> </table> Custom RAL / pigment-matched colours on request. See On-Site Pigmentation procedure.	Traffic White — RAL 9016	Traffic Black — RAL 9017	Traffic Yellow — RAL 1023	Traffic Orange — RAL 2009	Traffic Red — RAL 3020	Traffic Purple — RAL 4006	Traffic Blue — RAL 5017	Traffic Green — RAL 6024	Traffic Grey A — RAL 7042	Traffic Grey B — RAL 7043
Traffic White — RAL 9016	Traffic Black — RAL 9017										
Traffic Yellow — RAL 1023	Traffic Orange — RAL 2009										
Traffic Red — RAL 3020	Traffic Purple — RAL 4006										
Traffic Blue — RAL 5017	Traffic Green — RAL 6024										
Traffic Grey A — RAL 7042	Traffic Grey B — RAL 7043										
Finish	Smooth matt										
Product Type	Two-component methacrylate (MMA) resin system										
Product Tier	1-Layer pre-blended cycle lane anti-skid surfacing										
Specific Gravity (mixed)	1.757 kg/L										
Mass Solids	100%										
Volume Solids	100%										
VOC Content (mixed)	1.9 g/L (compliant with zero-VOC threshold < 5 g/L)										
Mixing Ratio (by weight)	Comp. A : Comp. B Hardener Powder = 100 : 0.5 - 3.0 (temperature-dependent)										
Pot Life	Approx. 15 minutes at 20 °C with 2 pbw Comp. B BP Hardener Powder										
Hardness (Shore D)	45 - 55										
Wet Film Thickness	1.5 - 2.5 mm per coat										
Application Rate	≈ 4.4 Kg/m ² at 2.5 mm nominal thickness										
Theoretical Coverage	≈ 4.4 Kg/m ² @ 2.5 mm WFT (theoretical, pre-blended)										
Application Method	Squeegee, trowel										
Application Temperature	10 - 35 °C (air) / 10 - 40 °C (substrate)										
Cleaning Solvent	Acetone (tools only — never on cured surface)										
HS / Tariff Code	3906.90.90										

Kit Composition

Comp.	Description	Pack Size (Net Mass)	Mix Ratio
A	PLASTILINE® MMA Cold Plastic Cycle Grip (factory pre-pigmented & pre-blended)	20 L tin (32 Kg net)	100 pbw
B	PLASTILINE® MMA BP Hardener Powder	Ordered separately	0.5 - 3.0 pbw

Comp. A is sold by net mass. Tins ship short-filled to provide headspace for the safe addition and blending of Comp. B BP Hardener Powder at point of use.

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Surface Preparation

Substrate	Cleanliness & Cure	Mechanical Prep	Primer	Notes
Asphalt	Clean, dust-free, sound. New asphalt ≥ 14 days cure.	Sweep and air-blow before application.	None.	Confirm no incompatible existing coating.
Concrete	Free of laitance, curing compounds and oil. New concrete ≥ 28 days cured.	Shot-/captive-blast or HP water-blast (≥ 3 000 bar) to CSP 3 - 4.	PLASTILINE® MMA Concrete Primer @ 100 - 150 g/m².	Mechanical prep mandatory — no acid etch.
Carbon Steel	Free of mill scale, flash rust, oil and previous coatings.	Blast to Sa 2½ / SP 10, 50 - 75 µm profile.	PLASTILINE® MMA Ceramic & Metal Primer within 4 hrs of blast.	Re-blast if flash rust appears.
Galvanized Steel	Degrease with alkaline detergent or solvent. Remove white rust and passivation layer.	Treat with PLASTILINE® Galvanized Iron Cleaner per its TDS, then rinse and allow to dry. Alternatively, sweep blast with non-metallic abrasive, or weather for 6 - 12 weeks.	PLASTILINE® MMA Ceramic & Metal Primer once dry.	Do not apply to bright or untreated zinc.
Aluminium	Solvent degrease. Remove oxide bloom.	Mechanically abrade to uniform matt (sander, scotch-brite, sweep blast).	PLASTILINE® MMA Ceramic & Metal Primer.	Verify shop-primer compatibility on bridge decks and ramps.
Ceramic / Tiled	Sound, well-bonded, no cracks. Strip wax / sealer / grout haze. Solvent degrease.	Diamond-grind, scarify or sweep-blast glazed tiles to matt.	PLASTILINE® MMA Ceramic & Metal Primer.	Bright glazed surfaces will not bond without abrasion.

All substrates: substrate temperature must be at least 3 °C above the dew point at all stages of application and cure. Apply only within the 10 - 40 °C substrate / air temperature window. Always conduct a substrate compatibility test before full-scale application.

Application

Standard Mixing Procedure

1. Open Comp. A. A clear paraffin layer may be present on the surface — this MUST be fully incorporated using an electric paddle mixer for at least 1 minute before catalyst addition.
2. Determine the correct hardener dose based on substrate temperature using the Hardener Dosing & Cure Profile table.
3. Add PLASTILINE® MMA BP Hardener Powder to the resin and mix thoroughly for 30 - 60 seconds (shorter at higher temperatures, longer at lower temperatures) until fully incorporated.
4. Begin application immediately. Do not return mixed material to the supply pail.

Application Method

Parameter	Specification
Method	Squeegee, trowel
Wet Film Thickness	1.5 - 2.5 mm per coat
Application Rate	≈ 4.4 Kg/m ² at 2.5 mm nominal thickness
Number of Coats	1 (1-Layer pre-mixed system — no broadcast)
Working Time	Temperature-dependent — see Hardener Dosing & Cure Profile
Tape Removal	Remove masking tape BEFORE the marking has fully cured to ensure clean, sharp edges
Tool Cleaning	Acetone, immediately after use — never on cured surface

Hardener Dosing & Cure Profile

Substrate Temperature	Standard Dose	Pot Life	Hardening Time	Low Dose (extended pot life)	Pot Life	Hardening Time
10 °C	3.0% by wt	≈ 14 min	≈ 45 min	2.0% by wt	≈ 18 min	≈ 50 min
20 °C	2.0% by wt	≈ 14 min	≈ 30 min	1.0% by wt	≈ 15 min	≈ 35 min
30 °C	1.0% by wt	≈ 8 min	≈ 20 min	0.5% by wt	≈ 12 min	≈ 30 min
40 °C	0.5% by wt	≈ 6 min	≈ 18 min	—	—	—

Hardener percentage is calculated on the net weight of Comp. A only. Temperature values refer to resin, substrate and air temperature combined. All values derived from controlled laboratory tests. Site deviations may occur due to environmental factors. Always confirm dose against current ambient conditions before mixing.

Topcoat Compatibility

PLASTILINE® MMA Anti-Blackening is a separately-specified optional topcoat applied directly over the fully cured marking. It enhances dirt-pickup resistance, rejects tyre rubber and bitumen, and preserves long-term colour contrast in high-traffic environments. Use a dedicated roller for each base colour to prevent colour transfer.

Limitations

- Hardener dose must match substrate temperature precisely. Under-dosing results in soft / uncured film; over-dosing reduces pot life and can cause cracking.
- Do not apply in direct sunlight — accelerated cure can cause surface defects and reduce mechanical strength.
- Do not apply if substrate or air temperature falls outside the 10 - 40 °C range.
- Substrate must be at least 3 °C above the dew point at all stages of application and cure.
- Do not apply over PUMMA or other flexible PU base coats — cracking will occur.
- Do not apply over silicone, silane or epoxy-treated surfaces — cure inhibition will occur.
- Do not apply over fresh concrete (< 28 days) or fresh asphalt (< 14 days).
- Empty the entire contents of the mixing pail in one application — do not retain or re-use partial batches once catalysed.
- Avoid contact between Comp. B BP Hardener Powder and any incompatible additive (e.g. concrete retarders, accelerators, plasticisers) — cure failure will result.
- Black tyre-rubber pickup may appear under heavy forklift or vehicle traffic owing to the thermoplastic nature of cured MMA. Specify PLASTILINE® MMA Anti-Blackening topcoat to mitigate.
- Always conduct a substrate compatibility test before full-scale application.
- Do not return mixed catalysed material to the supply pail.

Storage & Shelf Life

Property	Specification
Storage Temperature	5 - 25 °C (cool, dry, away from heat and ignition sources)
Shelf Life (unopened)	12 months from date of manufacture in original sealed container
Storage Conditions	Keep containers tightly sealed in original packaging. Store in a cool, dry, well-ventilated area away from direct sunlight, sources of heat and ignition. Comp. B BP Hardener Powder MUST be stored separately from Comp. A and away from accelerators, reducing agents and combustible materials.

Health & Safety

- Uncured methacrylate monomer has a strong characteristic odour. Use only in well-ventilated areas, or apply local extraction in confined spaces.
- Wear chemical-resistant nitrile gloves, safety eyewear and respiratory protection fitted with an organic-vapour cartridge during mixing and application.
- Comp. B BP Hardener Powder is an organic peroxide — store separately from Comp. A and away from heat, sparks and open flame. Keep below 30 °C.
- In the event of skin contact, wash thoroughly with soap and water and remove contaminated clothing.
- In the event of eye contact, irrigate immediately with clean water for at least 15 minutes and seek medical attention.
- Refer to the product Material Safety Data Sheet (MSDS) for full health, safety, transport and disposal information prior to use.

Regulatory & Disclaimer

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