



**ENNIS-FLINT**  
A Traffic Safety Solutions Company

# 04 High Friction

# Prismo Tyregrip™

## Technical Information



### Coloured skid resistant surface treatment.

BBA/HAPAS approved type one material conforming to the S.H.W Class 924. Prismo Tyregrip™ is a highly durable, specialist hand or machine applied coloured skid resistant surface treatment, consisting of a thermosetting modified epoxy/amine binder which is usually pigmented and dressed with natural coloured or pigmented aggregate, typically calcined bauxite or granite.

It provides a well textured surface typically 5mm thick for the standard road grade and 2-3mm thick for the pedestrian grade. The system can be readily applied to asphalt, macadam and concrete surfaces providing the latter is suitably primed.



## About Ennis-Flint

Ennis-Flint is a worldwide leader in the traffic safety and road marking industry providing quality and performance-driven solutions designed to enhance traffic safety for all users: drivers, pedestrians, cyclists and pilots.

You can find Ennis-Flint products on roads and highways, taxiways, runways, parking areas and in commercial, contractor, governmental, industrial, domestic, retail, airport and architectural settings.

With corporate headquarters in Thomasville, North Carolina and manufacturing, distribution, and sales locations occupying strategic points around the globe, Ennis-Flint does not lose sight of the fact our local relationships are what make and keep us strong.

Ennis-Flint EMEA (Europe, Middle East, Africa) is equipped to serve and exceed our customers' traffic safety and pavement marking requirements with our full range of quality products, outstanding geographic reach, and unmatched customer support with areas of expertise including, but not limited to:

- Road Markings
- Airfield Markings
- Road Studs
- High Friction Surfacing
- Bridge Expansion Joints
- Sealing and Crack Repair Systems
- Decorative Crosswalks and Traffic Calming Treatments
- Surface Graphics Systems
- Road Marking Performance Analysis
- Traffic Products
- Temporary Markings

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# Prismo Tyregrip™

Coloured skid resistant surface treatment.

## Typical Applications

Prismo Tyregrip™ is available in two grades: a standard road grade which is ideal for traffic applications such as sharp bends, bridges, roundabouts, pedestrian crossing, junctions and other hazard sites; and a pedestrian grade for areas receiving foot/light traffic such as footpaths and cycleways.

## Benefits

- Exceeds the minimum Highways Agency requirements for skid resistance and texture depth
- Variety of applications from foot/light traffic to road traffic; from traffic calming to skid resistant requirements
- Manufactured to BS EN ISO Quality Assurance
- Thermosetting (chemically cured) tough and durable surface which is resistant to oil, fuel and de-icing salts
- Quick to apply, curing in approx 3 hours at an ambient temperature of 20°C

## Preparation and Installation

The road surface shall be examined for texture, and if necessary, the texture depth measured by the sand patch method to determine the spread rate of binder. It shall be clean, dry and free from dust, laitance and foreign matter. If this is not the case, the surface shall be treated through a combination of cleaning with water/detergent solution followed by flushing with water and dried using a hot compressed air lance. Unless otherwise directed by the Engineer, all existing road markings, ironwork and studs shall be suitably masked.

Prismo Tyregrip™ is suitable for most asphalt surfaces provided they are in good condition and free from cracks and spalling etc.

Prismo Tyregrip™ may be applied to well compact hot rolled asphalt and most highway grades of asphalt are suitable.

However, certain types of bituminous surface may be unsuitable. For example, softer grade bitumen macadam and thinly applied bituminous materials should be avoided. Surface dressing and slurry seal surface are also not suitable.

When selecting Prismo Tyregrip™ for non-highway use, such as for footpaths, playgrounds and car parks where [softer] thinly applied macadam's are used, it is recommended that a site inspection is carried out and consultation with Ennis-Flint technical department.

Prismo Tyregrip™ should not be applied to freshly laid asphalt. It is recommended to leave it 4 weeks to allow the surface to stabilise.

Application shall only be carried out at a road surface temperature above 5°C.

For machine application, the two components (A & B) are warmed to below 50°C, loaded into separate feeder tanks on the spray machine and maintained at 55°C ± 5°C. These components are automatically proportioned to the correct ratio (50:50 ± 5% by weight) and mixed. The mixed components (binder) is then sprayed onto the road surface at a minimum coverage rate of 1.35 kg/m<sup>2</sup> which may be increased on more textured surfaces to ensure adequate coverage.

The hand application is either carried out by mixing an equal number of pre-weighed packs of A & B components, or drawing these components from separate feeder tanks situated on the back of a specially designed rig into pre-calibrated vessels.

The correctly proportioned components (50:50 ± 5%) are mixed using a low speed high torque drill fitted with a helical stirrer in a separate container for at least 3 minutes or until homogenous.

Once mixed, the binder is spread onto the substrate surface by means of a serrated edged squeegee at a minimum coverage rate of 1.35 kg/m<sup>2</sup> which may be increased on more textured surfaces to ensure adequate coverage.

For both applications the specified aggregate is then applied to excess and once the binder is sufficiently cured, the excess is removed by means of a suction sweeper or by hand brushing. Further sweeping/brushing may be required as the system fully cures. The coverage rate of the retained aggregate is approximately 7-8 kg/m<sup>2</sup>.



## Binder

The binder consists of a thermosetting modified epoxy/amine compound which holds the aggregate firmly in position, and has excellent adhesion to the substrate. It is applied above 5°C at a minimum application rate of 1.35kg/m<sup>2</sup> (typically 1.8 kg/m<sup>2</sup> depending on the type and degree of texture of the substrate) and complies with Table 1.

## Aftercare

Once the treated surface has cured, remove the excess aggregate by suction sweeper or hand brushing before re-opening to traffic.

## Aggregate

The aggregates used are natural or pigmented calcined bauxite which has a typical Polished Stone Value (PSV) of 70 and Aggregate Abrasion Value (AAV) of 4, or high PSV (typically 60+) natural coloured or pigmented aggregates which provide a coloured skid resistant surface.

The average coverage rate is 7-8 kg/m<sup>2</sup> and typical gradings comply with Table 2.

The aggregate should be clean and free from foreign matter.

Table 1

Properties (after 7 days curing at 23°C)

	Standard Road Grade
Tensile Strength @ 23°C	10.5 N/mm <sup>2</sup> min.
Elongation at break @ 23°C	30% minimum

Table 2

Aggregate Grading

	Standard Road Grade	Pedestrian Grade
Retained	3.35mm BS Sieve 5% max.	1.70mm BS Sieve 5% max.
Passing	1.18mm BS Sieve 5% max.	0.71mm BS Sieve 5% max.