

PRODUCT INFORMATION

COLDGRIP

Coldgrip, Coldgrip BBA, Coldgrip Export

High Performance Road Surfacing Systems



Description

Coldgrip is a generic name for a range of cold-applied thermoset resin road surfacing systems which provide high friction (skid-resistance) and/or color demarcation.

High friction properties are achieved and maintained throughout the service life of Coldgrip by scattering calcined bauxite aggregates onto the resin while still wet. By providing high friction contact with vehicle tires, braking is achieved more effectively and with less risk of skidding and loss of control.

High friction and color demarcation is achieved by using pigmented Coldgrip together with Colourgrip color coated aggregates.

Coldgrip BBA is BBA/HAPAS (British Board of Agrément/Highway Authorities Product Approval Scheme) approved as a Type 1 system, the highest classification available. This is subject to the scheme guidelines and the specific requirements within the BBA certificate.



Please see the full Coldgrip Method Statement, Application Guide and Video prior to applying to any unusual surfaces, such as timber or metals.

Coldgrip provides a good bond to most common road surfaces, including asphalt, macadam and concrete.

Uses

Where high friction is required, Coldgrip can be used on areas such as roadways, intersections, junctions, pedestrian crossings, roundabouts, traffic lights, sharp or adverse cambers on bends, car park ramps and any other potentially hazardous road surfaces.

For color demarcation, Coldgrip can be supplied as a pigmented resin and used in conjunction with Colourgrip color coated aggregates. Areas of use include cycle lanes, footbridges, subways, pavements, car parks, airports, railway platforms, bus stations, ports, dockyards, ships decks and leisure areas.

Benefits

Coldgrip is based on a high performance polyurethane resin and, consequently, has many advantages over alternative nonslip/anti-skid systems. These include by comparison:

To epoxy systems:

- Quicker curing, especially at lower temperatures
- Less affected by extremes of temperature
- Greater flexibility
- Enhanced adhesion to asphalt
- Less affected by age embrittlement
- Less prone to debonding

To hot applied (or thermoplastic) systems:

- More aesthetically pleasing appearance
- Smaller build-up differential
- Low application temperature
- Can be used where site accessibility is restricted
- Suitable for use in "fire hazard zones"
- Longer service life

Technical			
	Coldgrip	Coldgrip BBA	Coldgrip Export
Specific Gravity SG (mixed Resin)	1.49kg/l	0.98kg/l	0.98kg/l
Pot Life @ 20°C (approximate)	30 mins	20 mins	20 mins
Initial Set @ 20°C	1 hour	1 hour	1 hour
Open to traffic @20°C	2 hours	2 hours	2 hours
Tensile Strength @ 23°C min.	10.5 N/mm ²	10 N/mm ²	10N/mm ²
Elongation at Break @ 23°C min.	60%	80%	80%
Tensile Adhesion @20°C(typical)	2.5 N/mm ²	2.5 N/mm ²	2.5 N/mm ²
Skid Resistance Value (SRV) *	>80*	>80*	>80*

*Using traffic grade calcined bauxite aggregate.

For all systems, fully blind the wet resin with aggregate at 1.6 - 2lb/f² (8-10kg per m²). Following curing, sweep to retain 1 - 1.25lb/f² (5-6kg per m²);

For the highest achievable friction, calcined bauxite aggregate is used. For less critical areas other aggregates may be considered.

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Laboratory determined Polished Stone Values (PSVs) are shown in the table below:

Polished Stone Values (PSV) - Lab determined	
Typical Values - UK sourced	PSV
Red Granite/Basalt	55-58
Green Granite/Basalt	63
Dark Green Granite/Basalt	61
Black Basalt	55-60
Silver Grey Granite	48-55

Theoretical Spread Rates

The formula for calculating the spread rate can be simplified as follows: $(TD + FT) \times SG = \text{Weight of material required per m}^2$ where: TD = substrate texture depth in mm, FT = required film thickness in mm and SG = specific gravity of the mixed resin system.

At a required film thickness of 1.2mm (approx 1/8"), the table below estimates the approximate quantities needed.

Spread Rates	Coldgrip	Coldgrip BBA	Coldgrip Export
Specific Gravity (mixed resin)	1.49	0.98	0.98
Texture Depth in mm			
Quantity of Coldgrip Required in Kg/m ²			
0.0	1.788	1.176	1.176
0.5	2.533	1.666	1.666
1.0	3.278	2.156	2.156
1.5	4.023	2.646	2.646
2.0	4.768	3.136	3.136
2.5	5.513	3.626	3.626
3.0	6.258	4.116	4.116

Colours

Coldgrip resin can be colored with the addition of a pigment pack. The following colors are available:

Neutral
Red
Green
Blue
Yellow
Fawn
Grey
Black

High performance anti-skid surfacing is installed using either natural calcined Bauxite or the color coated variant supplied as Colourgrip. Where long-term color retention is a high priority naturally colored aggregates may be utilised.

See separate Colourgrip Product Information sheet for more information.



Substrate Preparation & Product Application

For more in-depth product application information and techniques, please refer to the **Coldgrip Method Statement, Application Guide or Video**. The following brief outline is for guidance only and should not sufficiently comprehensive.

- Allow 28 days prior to applying Coldgrip to new asphalt.
- Coldgrip must be applied to surfaces which are clean and dry. Time should be allocated to adequately prepare the substrate prior to the application of Coldgrip. Edges, drain covers etc should be masked.
- The substrate must be sound, as Coldgrip does not provide any structural strength. Repairs should be carried out in advance to ensure an even surface prior to the installation of Coldgrip. The surface should be pre-primed with Primer C where necessary.
- Mixing is carried out using a drill and paddle. The mix is then spread over the application area using a squeegee.
- Allow the resin to self-level for a few minutes and then broadcast the aggregates on to the wet film until the surface is fully blinded.
- While curing, any masking tape should be removed.
- The completed surface should be allowed to cure before sweeping off the excess aggregate which can be re-used if clean and dry.
- The surface is now ready for use.

Aftercare

Aftercare is not normally necessary. However, loose debris can be removed by pressure washing, ensuring that the nozzle is held more than 6" away from the surface. Oil staining can be treated with a stiff brush and a hard surface detergent.

This should be flushed away with clean water afterwards.

Packaging & Storage

Coldgrip is supplied in 2-part sealed containers - Part A and Part B. These may be plastic or metal containers depending on the variant selected. Pigment paste is supplied in small plastic sealed containers.

Store under cover, in cool, dry, well ventilated conditions. Keep containers closed until use.

Shelf life is normally 12 months in the above storage conditions.

Health & Safety

See separate Safety Data Sheet

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CompleteStreetsUSA

safe.smart.solutions

866.367.3232 | info@CompleteStreetsUSA.com