



## **Coldgrip BBA & Colourgrip - Coloured High Friction Surfacing**

- Product:** *Coldgrip BBA - Adbruf's BBA/HAPAS Type 1 high friction surfacing system*
- Project:** *Works Related to Road Safety Upgrading at Various Arterial Roads: Red Coloured High Friction Surfacing*
- Client:** *Transport Malta - [www.transport.gov.mt](http://www.transport.gov.mt)*
- Principal Contractor:** *B.Grima & Sons Ltd - [www.bgs.com.mt](http://www.bgs.com.mt)*



**B.Grima & Sons Ltd.**

Building . Turnkey . Road Marking . Traffic Signs Contractors



**BBA** BRITISH BOARD OF AGREEMENT  
TECHNICAL APPROVALS FOR CONSTRUCTION

CERTIFICATE NO. 02/H066

## **Background**

Transport Malta produced a tender for work to improve the road safety of a number of arterial roads in Malta. The tender called for a high friction safety surfacing material to be installed at the approaches to the newly developed roundabout junctions and bus stops. An accident had been happening nearly every week at that point of the road, due to the surface being very slippery.



## **Design Brief**

Transport Malta's tender called for a proprietary system capable of meeting or exceeding the performance requirements for the combination of traffic levels and site conditions within their specification.

The specification stated that the system had to comply with Transport Malta Specification Series 900, Clause 924, hold a British Board of Agrément HAPAS Roads and Bridges Certificate, must be capable of meeting the performance requirements regarding traffic levels and site conditions, meet the colour criteria of RAL 3020 and the surface texture requirements.

The aggregate was to be natural coloured or pigmented crushed rock, complying with the Transport Malta specification Series 900, Clause 901 when tested in accordance with the procedures of BS EN 13043. The aggregate was required to have a high Polished Stone Value (PSV).

Transport Malta issued the tender and B.Grima & Sons were awarded the contract, fending off three other competitors, as their offer satisfied all the conditions of the tender.





## **Solution**

B. Grima & Sons started 30 years ago as building and turnkey contractors. In the last ten years B. Grima & Sons Ltd, has become one of the leading companies that imports and supplies traffic signs, road paint, and road safety materials to local councils, & road building contractors in Malta.

B.Grima & Sons submitted a system comprising Adbruf's Coldgrip BBA in conjunction with Adbruf's Colourgrip colour coated aggregate as their response to the tender.

Coldgrip BBA resin based road surfacing material is designed to provide the road user with high skid resistance and colour demarcation. It is certificated to BBA/HAPAS Type 1 complying with Transport Malta's tender requirements.

In conjunction with Coldgrip BBA, B. Grima & Sons recommended using Adbruf's Bold Red Colourgrip - a pigmented epoxy resin coated red granite 1-3mm aggregate that meets the required PSV properties and the colour criteria of RAL 3020.



## **Installation**

B. Grima & Sons applied Coldgrip BBA to various areas consisting of a clean, dry, contamination free base of existing asphalt.

All existing surfaces were cleaned using steel brooms and suction mechanical sweeping or other appropriate means. All mud, dust, dirt and other debris and organic material were also removed.

B. Grima & Sons regulated existing surfaces where necessary, in accordance with the requirements of Transport Malta specification Series 900, Clause 907, in advance of laying Coldgrip BBA surfacing material.

Work to install Coldgrip BBA was carried out at night, over two days to ensure that the surface temperature did not exceed 20°C to allow for maximum working time.

The two part resin mix provides the binder; the components were mixed together thoroughly until homogenous. The red pigment was added and again mixed. The resultant mix was spread evenly on to the surface using a serrated squeegee. Once the film had levelled, Colourgrip Bold Red colour coated aggregate was broadcast on to the wet film, ensuring no resin remained visible. When the Coldgrip BBA resin had fully cured, excess aggregate was swept off to reveal the finished surface.



## **Product Details**

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

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.

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

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



## **Contractor's Comments**

**Adam Grima - MD - B.Grima & Sons Ltd**

***"We have used Coldgrip BBA for Bus Stops and Junctions, and we are happy to say that while other competitors material deteriorate quickly (both the colour and the bonding), Coldgrip BBA remains in place and without any discolouration. It is very easy to apply and the method statement and brochures are very helpful".***