



Armourgrout BP05

Polymodified road stud grout



INSTALLATION METHOD STATEMENT Latest Revision - December 2021

1/3

1. GENERAL DESCRIPTION:

Armourgrout is a polymer modified bituminous hot melt adhesive for bonding surface mounted and inset reflective road studs on concrete and asphalt carriageways.

2. PRODUCT:

The **Armourgrout** is a blend of polymer modified penetration grade bitumen and fine limestone extender conforming to the following specification. Generally termed “hot melt” type as it requires heating in order to liquify for application.

BRAND NAME: Standard Hot Melt Adhesive BP05

3. HEATING - INITIAL & ONGOING:

READ HEALTH AND SAFETY NOTES CAREFULLY BEFORE HEATING COMMENCES.

- 3.1 It is advisable to break the adhesive block into smaller pieces for more efficient heating.
- 3.2 Using suitable application equipment (see section 6) capable of maintaining adhesive temperature, the adhesive is heated to 160°C – 180°C. This is the optimum temperature for both adhesion and application properties. Lower temperatures will reduce adhesion and make it more difficult to handle. Higher temperatures maintained for longer periods may damage properties and could lead to combustion.

4. SURFACE PREPARATION:

- 4.1 Ensure the road surface is dry, free of dust and any loose material before application commences. Oil, grease or salt deposits should be removed either mechanically or chemically.
- 4.2 Studs must not be laid over loose detritus, mud or similar extraneous matter or over old flaking markings of paint or thermoplastic material.
- 4.3 If the road surface is at a temperature of less than 5°C, or if it is wet, it must be warmed carefully so that, when the adhesive is laid, the road surface temperature is above 5°C and the surface is dry.

5. APPLICATION:

- 5.1 After surface preparation, the adhesive should be dispensed from the heating unit directly onto the road surface in order to maintain correct contact temperature. Oil jacketing or other heating at the dispensing head is recommended in order to achieve this.
- 5.2 Sufficient adhesive should be applied onto the surface to cover an area slightly larger than the stud base. The stud should be immediately placed on to the adhesive ensuring an edge seal around the entire stud. It is better to apply too much adhesive than not enough. The stud should sit on a layer of adhesive – not the road surface or of any prominent chipping.
- 5.3 Studs not bedded on the entire surface area will be subject to non uniform loading which may lead to failure. Applications to surface dressed, or other surfaces of macro texture may require



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2/3

two applications of adhesive in order to fill the interstices.

- 5.4 A hole of the appropriate diameter and length should be drilled first for the shanked types of road studs. The hole is then filled with hot melt and the stud immediately fully inserted with foot pressure. Adhesive will be displaced to the surface and underside of the stud forming a seal around the edge.
- 5.5 Subject to ambient temperature, the studs should be allowed to set for 1 - 2 minutes before exposed to traffic. Complete resistance to rotational movement of the stud by hand indicates it is ready to be trafficked.

6. SAFE HANDLING PRECAUTIONS & NOTES:

- 6.1 **DO NOT EXCEED THE MAXIMUM SAFE HEATING TEMPERATURE. UNDER NO CIRCUMSTANCES SHOULD THE ADHESIVE EXCEED 200°C.** Heating above the recommended 160°C – 180°C for prolonged periods may effect properties and heating above 200°C may lead to combustion.
- 6.2 **Do not allow the hot material to come into contact with water as the product WILL REACT VIOLENTLY.**
- 6.3 **Always wear the recommended protective clothing - see section 7.**
- 6.4 1 kilo of material is sufficient for the application of approximately 6 – 10 surface mounted / shanked studs depending on the stud type and road surface.
- 6.5 1 kilo of material is sufficient for the installation of 1 – 2 embedded snow ploughable / long life types.
- 6.6 1 kilo of material is sufficient for the installation of approx 5 Siglite 19 mm – depending on the diameter of the hole. Technical assistance is available for demonstration of the application technique if required.
- 6.7 The information contained in this document is given in good faith and believed to be true and accurate. However, no guarantee of results are implied since conditions of use are beyond our control.
- 6.8 Tropicalised versions of the hot melt adhesive are available for use in countries where higher ambient and surface temperatures prevail.
- 6.9 **IF STUDS ARE INSTALLED IN UNFAVOURABLE CONDITIONS OPTIMUM PERFORMANCE CANNOT BE EXPECTED. i.e ENSURE THAT APPLICATION INSTRUCTIONS ARE ADHERED TO FOR BEST RESULTS.**

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Walker Sealants Limited
Manufacturing & Sales Division
Outland Head
Bradwell, Hope Valley
Derbyshire, S33 9JP
Tel: 01433 621 600



Directors: J.S. Walker, J.G.R. Walker
Company Reg No. 4041871

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7. SAFETY CLOTHING & EQUIPMENT:

The following safety clothing and equipment must be worn **AT ALL TIMES** when handling, mixing or applying **Armourgrout** materials:

Hand Protection: Gloves - Industrial type, heat resistant with elasticated sleeves.

Eye Protection: Safety Glasses, Goggles, Face Shield (When Transferring Molten Material).

Skin Protection: Overalls (Flame retardant) and Closed Safety Boots.

This data is provided for your information and your attention is drawn to the appropriate package labelling and the product safety data sheet. Users of the product must ensure its proper use in accordance with good industrial practices, proper medical advice and any official or Government notice or publication. This information is provided gratuitously independent of any sale of the product and does not form part of any contract or sale nor does it constitute any representation, warranty or condition of merchantability or fitness for any purpose.
