Product Name: Hanover® Asphalt Block

Manufacturer: Hanover® Architectural Products, 5000 Hanover Road, Hanover, PA 17331
717.637.0500 • Fax 717.637.7145
info@hanoverpavers.com • www.hanoverpavers.com

1 PRODUCT DESIGN:

Basic Use:
Any area capable of being paved can utilize Hanover® Asphalt Block. Hanover® Asphalt Block provide a surface equally suited to both municipal and urban projects. Installations will benefit from its appearance, slip resistant properties, and ability to withstand snow removal and freeze thaw conditions. Typical installations include plazas, walkways, pool areas, and courtyard/entry paving.

Composition and Materials:
Hanover® Asphalt Block shall be manufactured by Hanover® Architectural Products, 5000 Hanover Road, Hanover, PA 17331. They shall contain clean, hard, unweathered stone, which shall be crushed in such a manner that the particles shall be as nearly cubic as possible and vary in size up to 3/8”. The inorganic dust or filler contained in the block shall be produced from sound limestone or other approved material.

Limitations:
For vehicular applications, review details with Hanover® Architectural Products Technical Department. Areas that are subject to spillage of petroleum products and solvents.

2 TECHNICAL DATA:

Application Standard:
The Asphalt cement shall conform to Type 3 asphalt ASTM Designation D-312 with a penetration at 77 Degrees F, 100 G, 5 sec of minimum 15mm and maximum of 35mm. The blocks shall have a permissible plus or minus tolerance of 1/8” in any direction. The average absorption of a set of four blocks shall not be more than .85%

Physical Characteristics:
Hanover® Asphalt Block are available in the following sizes, 4” x 6”, 6” x 6”, 5” x 12”, 6” x 12”, 8” x 8”, 8” Hexagonal, 3D Diamond and Elongated Hexagona. Thicknesses range from 1-1/4” to 3”. Standard thickness is 2”.

3 INSTALLATION:

Bituminous Setting Bed for Asphalt Block over Prepared Base:
Asphalt cement to be used in the bituminous setting bed shall conform to ASTM Designation D-946-69A with a penetration at 77 degrees F, 100G., 5 sec of minimum 85 millimeters and a maximum of 100 millimeters.

The fine aggregate to be used in the bituminous setting bed shall be clean, hard sand with durable particles and free from adherent coatings, lumps of clay, alkali salts and organic matters. It shall be uniformly graded from “coarse” to “fine” and all passing the No. 4 sieve and meet with gradation requirements when tested in accordance with the standard method of test for sieve and screen analysis for fine and coarse aggregates ASTM Designation C-136-67. The dried fine aggregates shall be combined with hot asphalt cement, and the mix shall be heated to approximately 300 degrees F at asphalt plant. The appropriate proportion of materials shall be seven (7) percent asphalt cement and ninety-three (93) percent sand by weight in the approximate ratio of 145 pounds asphalt to 1,855 pounds of sand. The contractor shall determine the exact proportions to produce the best possible mixture for construction of the bituminous setting bed to meet construction requirements.

Neoprene-Modified Asphalt Adhesive Under Asphalt Block: MASTIC (Asphalt Adhesive)

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>CAS</th>
<th>TLV</th>
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<tbody>
<tr>
<td>Asphalt</td>
<td>49-53</td>
<td>8052-42-4</td>
<td>5mg/m³</td>
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<tr>
<td>Solvent</td>
<td>17-22</td>
<td>6474-41-9</td>
<td>100ppm</td>
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<tr>
<td>Fiber</td>
<td>3-5</td>
<td>9004-34-6</td>
<td>N/A</td>
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<tr>
<td>Mineral Filler</td>
<td>8-11</td>
<td>1318-94-1</td>
<td>N/A</td>
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<tr>
<td>Amine Salt</td>
<td>1-2</td>
<td>30113-45-2</td>
<td>.1 mg/m³</td>
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<tr>
<td>Clay</td>
<td>7-9</td>
<td>8031-18-3</td>
<td>N/A</td>
</tr>
<tr>
<td>Latex</td>
<td>7-13</td>
<td>9003-18-3</td>
<td>N/A</td>
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VOC Content < 150 g/l
Place Bituminous Setting Bed for Asphalt Block:
Install the setting bed directly over a prepared concrete sub-base. Place two screed rails at desired width to serve as guides for the striking board. The screed rails should be carefully set to ensure proper setting bed depth and finished paver grade. If necessary, adjustments can be made under the screed rails with wood chucks or shims; typical setting bed depth is 3/4". Place the bituminous material between the parallel screed rails. Position striking board perpendicularly over the screed rails and pull smooth. Repeat several times showering low porous spots with fresh bituminous material to yield a smooth, firm and even setting bed. As soon as this initial panel is completed advance the first bar to the next position in readiness for striking the next panel. Carefully fill any depressions that remain after removing the screed rails and wood chucks. The bed depth shall be adjusted to ensure the top surface of the placed pavers will be at the required finished grade.

JOINTING:
Asphalt Block should be laid with joints hand tight to a maximum of 1/16" wide. The joints must be filled with a dry sand. This can be achieved by brushing the sand into the joints. Any surplus sand should be removed from the completed paving.

APPLICATION: For all on-grade applications, gauging of pavers is recommended.
For pedestrian applications:
The setting bed shall be screed, while hot, to a nominal 3/4" depth. The thickness of the bed shall be adjusted so that when the pavers are placed, the top surface of the paver will be at the required finished grade. Rolling of the bituminous setting bed is optional in pedestrian applications. The use of neoprene tack coat is acceptable on a rolled bituminous setting bed, and its use is at the discretion of the designer/specifier. Please note the use of neoprene tack coat is not advised on an unrolled bituminous setting bed. (See attached detail for typical cross section.)
For vehicular applications:
The setting bed shall be screeded and rolled with a power roller while hot, to a nominal 3/4" depth. The thickness of the bed shall be adjusted so that when the pavers are placed, the top surface of the paver will be at the required finished grade. The use of neoprene tack coat is acceptable on a rolled bituminous setting bed, and its use is at the discretion of the designer/specifier. Contact Hanover® for the correct recommendations to be used in vehicular applications.

4 AVAILABILITY
Hanover® Asphalt Block are readily available in the continental United States. For further information call Hanover® Architectural Products, Inc.

5 WARRANTY
Hanover® Architectural Products will certify specific pavers to meet or exceed internal standards as well as previously stated ASTM performance standards.

6 MAINTENANCE
Hanover® Asphalt Block require practically no maintenance if installed properly. Degree of soiling and staining will depend on type and amount of use over time. Contact manufacturer for information regarding cleaning of Asphalt Block pavers.

7 TECHNICAL SERVICES
Complete technical information and printed literature from manufacturer.