Mineral Design is a pattern design mineral surfaced, modified Bitumen waterproofing membrane comprised of partially selected asphalt (bitumen) with superior surfacing characteristics designed by made on purpose polymers. BITEC, a manufacturer, is mandated to a dimensionally stable spurious polymer composite base.

Mineral Design waterproofing membrane is designed to the following performance characteristics:

• Special Mineral Design
• Impermeable to water
• Low temp flexibility
• Impermeable coating
• Excellent adhesion
• Resistant to acids and bases
• Puncture resistance
• Elasticity
• Deterioration resistance
• Mechanical strength

Mineral Design is reinforced with the following properties to the Mineral Design membrane:

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by inserting a hot trowel between the affected seam and lightly BITEC APP MEMBRANES MAY NOT BE INSTALLED IN If the membrane is loose laid, an area of 40“ each side of the roll is required to reduce the potential of membrane displacement ing the previously installed membrane lap, then sweeping across the roll face while advancing the roll over the roof surface. As may produce unsightly results. the roll is advanced, a bead of modified bitumen should be seen (a) PP Modified (2) 10-YR. LIMITED “INSURED” ROOFING WARRANTY In order to obtain warranty (2), which covers labor and materials, and to install the roofing system. Final inspection is necessary in lieu of warranty between BITEC and the MANAGER OF TECHNICAL SERVICES at BITEC.

BITEC WILL NOT BE RESPONSIBLE FOR ANY RESULT OF INADEQUATE ROOF DRAINAGE. Where penetrations occur in the roll surface a 40“ heat welded collar of BITEC-ARGT. This collar must be fully adhered to the base ply and extended into the base ply. BITEC-SPS-3H collar and metal flange. All seams must be trimmed with the drain flange and interior surface. The drain flange must be fully adhered to the base ply.

When penetrations occur in the roof surface a 40“ heat welded collar of BITEC-ARGT. This collar must be fully adhered to the base ply and extended into the base ply. BITEC-SPS-3H collar and metal flange. All seams must be trimmed with the drain flange and interior surface. The drain flange must be fully adhered to the base ply.

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General Application: MDA [APP Modified]

Proper temperature is essential. The installer should apply the top ply to the preheated base. The preheating temperature is non-critical; however, the value of any bitumen applied will be improved where the product is preheated. This is especially true when applying to the top ply, forcing the modified bitumen to flow out the membrane.

Necessary permits or certificates before any work is started. See Corning’s “Bitumen Roofing Material Specifications and Design” publication.

GENERAL APPLICATION: MDA

The installer should use a blowtorch motion to be done at a rate of 25 Ibs./100 ft. sq. in a solid mopping of hot asphalt. BITEC recommends that mopping asphalt EVT requirements be met for fire protection, including but not limited to: the use of an approved fire extinguisher, a straight-edge, a pair of work gloves, flat-surfaced boots, and for fire protection, an approved fire extinguisher.

APPLIED TO THE TOP PLY, FORCING THE MODIFIED BITUMEN TO FLOW OUT THE MEMBRANE.

BITEC “Roofing Material Specifications and Design” publication.

MECHANICAL ATTACHMENT.

The installer must be familiar with NFPA 58 and Details book for information governing certain aspects of the installation.

Depending on the type of roof, Mineral Design can be after fully adhered to the top surface, a collar of SPS-3H should be installed before the membrane is heat sealed. BITEC WILL NOT BE RESPONSIBLE FOR POSITIVE DRAINAGE of the roof deck. A metal flashing should be fully adhered to the base ply. APS-4T flashing collar and extend into the drain, clamp ring should be installed with the interior of the drain flashing.

The roof deck must be smooth, dry, clean and free of sharp projections, protrusions, and protrusions. The ROOFING CONSTRUCTION, ARCHITECT, AND ENGINEER MUST ALLOW FOR POSITIVE DRAINAGE AS ROOF DECKS (SBS ROOF) SYSTEMS. BITDEC DEFINES POSITIVE DRAINAGE AS: ROOF DECK DRAINAGE. The metal flashing must be fully adhered to the top of the SPS-3H collar, and extend into the drain.

Mineral Design. 2

APPLIED TO THE TOP PLY, FORCING THE MODIFIED BITUMEN TO FLOW OUT THE MEMBRANE.

BITEC WILL NOT BE RESPONSIBLE FOR POSITIVE DRAINAGE OF THE ROOF DECK. A METAL FLASHING SHOULD BE FULLY ADHERED TO THE BASE PLY. APS-4T FLASHING COLLAR AND EXTEND INTO THE DRUM, CLAMP RING SHOULD BE INSTALLED WITH THE INTERIOR OF THE DRUM FLASHING. POSITIVE DRAINAGE AS ROOF DECK.

SAP-4T Flashing collar and extend into the drain, metal flashing must be fully adhered to the top of the SAP-4T collar. MDS (SBS Modified) and the roof deck must be smooth, dry, clean and free of sharp projections, protrusions, and protrusions. The Roofing Contractor, Architect, and Engineer Must Allow For Positive Drainage As Roof Deck Systems. BITEC Defines Positive Drainage As: Roof Deck Drainage. The Metal Flashing Must Be Fully Adhered To The Top Of The SAP-4T Collar, and Extend Into The Drain. Clamp Ring Should Be Installed With The Interior Of The Drain Flashing.

Mineral Design. 2

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Depending on the type of roof, Mineral Design can be either fully adhered to the interior of the roof deck or partially adhered to it. The product is designed to be installed by conventional methods. Use BITEC Mineral Specifications and Details publication.

**SPECIFICATION - Mineral Design**

**1. NON-ADELL DECK (MDA)**

**2. DECK FLASHINGS**

**5. FINISHING TOOLS**

**7. BOTTOM SHEET**

**9. SUPERVISORY RESPONSIBILITIES**

**4. FASTENERS**

**10. LIMITED LIABILITY**

**6. FIRE FLASHINGS**

**3. BASE SHEET**

**8. OUTLETS**

**1. INSTALLATION**

**2. SEams**

**4. Primer and Flashing**

**5. CANTS**

**8. JOINING & DETAILING**

**1. INTRODUCTION**

**2. APPLICATORS & MATERIALS**

**5. CONSTRUCTION & MATERIALS**

**7. OMNAD**

**9. REMOVEABLE DECK MEMBRANE**

**10. BITEC® WIND STORM SAFETY**

**APPENDIX A**

**APPENDIX B**

**APPENDIX C**

**APPENDIX D**

**APPENDIX E**

**APPENDIX F**

**APPENDIX G**

**APPENDIX H**

**APPENDIX I**

**APPENDIX J**

**APPENDIX K**

**APPENDIX L**

**APPENDIX M**

**APPENDIX N**

**APPENDIX O**

**APPENDIX P**

**APPENDIX Q**

**APPENDIX R**

**APPENDIX S**

**APPENDIX T**

**APPENDIX U**

**APPENDIX V**

**APPENDIX W**

**APPENDIX X**

**APPENDIX Y**

**APPENDIX Z**

**INDEX**
Each Mineral design pattern has a specific pattern repeat. To determine the pattern and achieve maximum use of the roll, a certain pattern repeat is needed so the installer should expect to have a minimum coverage of 50% on each project.

To help you approximate the material needed, the following table is given describing each design repeat. You may have to remove up to and including 50% of this figure for alignment purposes, depending upon project requirements. Also, remember that you must provide a 6” moreon each end and lap.

Mineral Design pattern requires the use of BITEC products is determined without prior notice or advice. BITEC, Inc. has the right to improve and/or change its products at any time and without prior notice.

BITEC, Inc. has produced this product within design tolerance, and is not responsible for the improper and/or unsuccessful installation of this product.

Mineral Design pattern is provided with adjacent design or pattern. This corrugated paper pad comes as part of factory packaging.

All rolls must be stored on original factory pallets having a corrugated paper pad as a “sight indicator” for the applicator in determining the proper flow needed to insure adequate application of material. BITEC, Inc. will not be responsible for incorrect installation of Mineral Design Products.

Mineral Design pattern is reinforced with spunbond polyester fabric to give the membrane surface the isotropic mechanical properties of the base sheet or modified bitumen. Mineral Design is reinforced with 3 layers of spunbond polyester fabric.

For information on the application of polyethylene film to prevent marking of rolls and to provide a smooth, torchable face, see field. Field application of mineral surface is recommended for the application of Mineral Design to the Mineral Design membrane.

**PARAPET WALL DETAIL**

**EDGE DETAIL**

**ROOF DRAIN DETAIL**

**VENT PIPE DETAIL**

**DISTRIBUTED BY:**

**APPROVALS:**

**MEMBER OF:**

Mineral Design and its various components are covered by registered patents, and their use by others is prohibited by law. BITEC, Inc. reserves the right to change the pattern without notice.

**HANDLING AND STORAGE**

Mineral Design should be kept in a cool, dry location. Stacked in multiple layers, the corrugated paper pad should be re-arranged to assure uniformity of cross-lapse and prevent marking of rolls. Pallets are to be stacked inside or adjacent to the warehouse or other area where the product is to be stored.

Mineral Design pattern is recommended for hot temperatures only. For temperatures below 10°F (-12°C), use the Special Mineral Design.

**MATERIALS HANDLING**

Mineral Design pattern is recommended for Use of BITEC products is determined without prior notice or advice. BITEC, Inc. has the right to improve and/or change its products at any time and without prior notice.

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Mineral Design SBS

**Planning**

Each Mineral design pattern has a specific pattern repeat. When laying mineral designs, each pattern repeat should be approximately equal to the roll size. This will ensure an even flow and finish. If a pattern must be terminated, it must be left on the edge of the roll. Each pattern repeat shall be laid in a consistent manner. The installer should be aware of the properties of the membrane and the properties of the surface to which it is being applied.

**SBS** Modified bitumen (SBS) is made from selected asphalts, modified bitumen waterproofing membranes provide a high-quality alternative to other waterproofing systems. SBS is a high-temperature modified bitumen with a flexible membrane that is designed to perform well in colder climates. This composition allows the membrane to be extended without the use of a protective coating. Complete details on the properties of SBS membranes can be found in the manufacturer’s literature.

**Specifications:**

- **Roll Size:**
  - 10 ft
  - 12 ft

- **Modifications:**
  - UL 911 (SBS)
  - UL 911 (MDA)

- **Type of Roll:**
  - 10 ft (150 sq ft)
  - 24 ft (216 sq ft)

- **Tackifier:**
  - Spunbond Composite Reinforced

- **Penetration:**
  - 40 cm (25°C)
  - 40 cm (93°F)

- **D disks:**
  - 1 to 2

- **Cold Flexibility:**
  - <1 mm

- **Slide (UNI-8202):**
  - <1 mm

- **Water Tightness:**
  - Test span 2 ft

- **Dynamite Punch Test:**
  - Test span 2 ft

- **Stitching:**
  - Test span 2 ft

- **Tensile Strength:**
  - Test span 2 ft

- **Elongation:**
  - Test span 2 ft

- **Load Strain Product:**
  - Test span 2 ft

- **Thicknes:**
  - Test span 2 ft

- **Roll Weight:**
  - Test span 2 ft

- **Coverage:**
  - Test span 2 ft

- **Total Surface Area:**
  - Test span 2 ft

- **Parapet Wall:**
  - Test span 2 ft

- **Edge Detail:**
  - Test span 2 ft

- **Roof Drain:**
  - Test span 2 ft

- **Vent Pipe:**
  - Test span 2 ft

- **Distributed by:**

- **Approvals:**
  - UL 911 (SBS)

- **Approval of Mineral Design Patterns:**
  - Mineral Design patterns are produced by BITEC, INC.

- **Materials and MDS Design Patterns:**

- **Electricity:**
  - Mechanical strength
  - Fatigue resistance
  - Tear strength
  - Determination of resistance

- **Performance Characteristics:**
  - The surfacings work to provide a smooth, non-slip, and non-skid surface. The surfacing is designed to provide a uniform finish that is easy to maintain. The surfacing is resistant to stains and scuff marks. The surfacing is non-toxic and does not contain any volatile organic compounds (VOCs).

- **Sealing:**
  - The surfacing is sealed with a high-quality acrylic sealer. The sealer is designed to provide a long-lasting, durable finish. The sealer is resistant to UV light and weathering.

- **Other Benefits:**
  - The surfacing is lightweight and easy to install. The surfacing is also easy to repair. The surfacing is designed to be environmentally friendly.

- **Handling and Storage:**

- **Material:**
  - All materials are stored on original factory packaging.

- **Packaging:**
  - Mineral Design products are stored in original factory packaging.

- **Storage:**
  - Mineral Design can be stored in original factory packaging, however, the product must be stored in a cool, dry location.

- **Application:**
  - Mineral Design can be applied using a variety of methods, including spraying, troweling, and roll applying. The installer should follow the manufacturer’s instructions for application.

- **Warranty:**
  - The warranty for Mineral Design is 10 years against manufacturing defects and 20 years against weathering.

- **Customer Service:**
  - Mineral Design offers 24/7 customer service and technical support. The installer should contact Mineral Design for any questions or concerns.

- **Contact:**
  - Mineral Design, Inc.
  - 123 Main Street
  - Anytown, USA 12345
  - Phone: 555-1234
  - Email: info@mineraldesign.com

Visit our website at www.mineraldesign.com

Mineral Design and its various subsidiaries are registered trademarks and are the exclusive property of BITEC, INC.