Grace Construction Products

**Roofing Underlayment**

Tri-Flex® Specification

Part 1 — General

1.01 Summary

A. Section Includes: Tri-Flex® mechanically-attached underlayment for sloped roofs.

B. Related Sections:

1. Section 06100—Rough Carpentry

2. Section 07220—Roof and Deck Insulation

3. Section 07311—Asphalt Shingles

4. Section 07313—Metal Shingles

5. Section 07315—Slate Shingles

6. Section 07317—Wood Shingles and Shakes

7. Section 07320—Roof Tiles

8. Section 07610—Sheet Metal Roofing

9. Section 07620—Sheet Metal Flashing and Trim

1.02 References

A. American Society for Testing and Materials (ASTM)

1. D226 Standard Specification for Asphalt-Saturated Organic Felt used in Roofing and Waterproofing

2. D828 Standard Test Method for Tensile Properties of Paper and Paperboard Using Constant- Rate-of-Elongation Apparatus

3. D1938 Standard Test Method for Tear-Propagation Resistance (Trouser Tear) of Plastic Film and Thin Sheeting by a Single-Tear Method

4. D1970 Standard Test Method for Self-Adhering Polymer Modified Bituminous Sheet Material Used as Steep Roof Underlayment for Ice Dam Protection

5. D3767 Standard Practice for Rubber—Measurement of Dimensions

6. E96 Standard Test Method for Water Vapor Transmission of Materials

7. E108 Standard Test Method for Fire Tests of Roof Coverings

B. Other

1. AC48 Acceptance Criteria for Roof Underlayment For Use In Severe Climate Areas

2. TAS 104 Test Procedure for Nail-On Underlayment for use in Discontinuous Roof Systems

3. TAS 117 Appendix B Test Procedure of Roofing Membranes over Fasteners with Metal Bearing Plates

4. CAN/CSAA220.1-M Canadian Standards Association (CSA)—Installation of Concrete Roof Tiles

1.03 Submittals

A. Manufacturer’s product data sheet and product sample.

1.04 Quality Assurance

A. Manufacturer Qualifications: Tri-Flex roofing underlayment shall be

manufactured and marketed by GCP Advanced Technologies, GCP Cambridge, MA or a firm with experience in the production and sales of mechanically-attached roofing underlayments.

1.06 Delivery, Storage and Handling

A. The membrane and accessory products must be handled properly. Read all product labels and Safety Data Sheets (SDSs) for proper handling and disposal. Deliver all materials in manufacturer’s unopened packages and store all materials under cover.

Part 2 — Products

2.02 Manufacturers and Products

A. Acceptable Products and Manufacturers: Tri-Flex manufactured by GCP Advanced Technologies, GCP Construction Products, Cambridge, MA.

2.03 Materials

A. Tri-Flex is a cold-applied, mechanically-attached underlayment composed of spunbonded polypropylene base sheet coated on both sides with UV stabilized polyolefin. Product shall conform to the physical properties as listed in the   
chart below:

|  |  |  |
| --- | --- | --- |
| Property | Value | Test Method |
| Color | Black |  |
| Weight | 28 lbs (10 sq roll) |  |
| Tear strength | MD 58 lbs; CD 77 lbs | ASTM D4533 |
| Accelerated aging | Pass (no damage, cracking, chipping) | ICC-ES AC48 |
| Ultraviolet resistance | Pass (no peeling, chipping, cracking, flaking) | ICC-ES AC48 |
| Water ponding | Pass (no percolation) | ASTM D779 |
| Pliability | Pass (no cracks) | ASTM D226 |
| Water transmission test | Pass | ASTM D226 |
| Tensile strength | MD 96lbs, CD 116lbs | ASTM D828 |
| Thickness | 12 mil | ASTM D3767 |

2.04 Accessories

A. Accessory Products: Low-solvent asbestos free plastic roofing cement, meeting ASTM D4586 Type 1.

Part 3 — Execution

3.02 Preparation

A. Install the product directly on a clean, dry, continuous structural deck. Remove dust, dirt, and loose nails. Protrusions from the deck area must be removed. Decks shall have no voids, damaged, or unsupported areas. Repair deck areas before installing the product.

3.03 Installation

A. Install in strict accordance with manufacturer’s printed application procedures, precautions, and limitations.