

**Meets the requirements of ASTM D 6222, Type I, Grade G**

### Features and Components

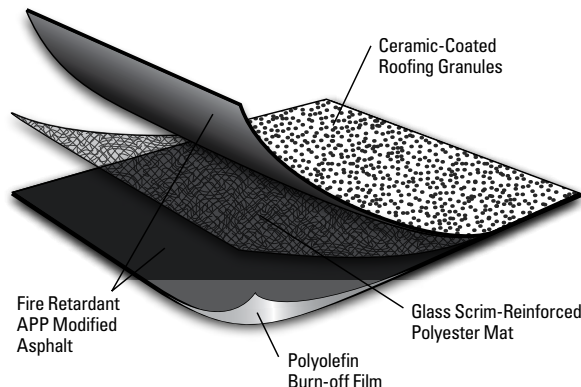
APPEX 4.5M FR is used as a cap or flashing sheet in APP multi-ply roofing systems.

**Ceramic-Coated Roofing Granules:** Specifically engineered for optimal embedment in the APP-blended sheet. The ceramic coating promotes excellent long-term adhesion.

**Premium APP (Atactic Polypropylene) Polymer, Asphalt and Fire-Retardant Blend:** Provides an extremely durable sheet with excellent weathering characteristics, flexibility and dimensional stability for ease of handling and quick installations.

**Polyester Reinforcement Mat:** Provides bidirectional glass-scrim reinforcement and offers robust tear strength and puncture resistance, allowing for high wind performance and excellent hail rating. The sheet also exhibits strong dimensional stability and enhanced elongation.

**Polyolefin Burn-Off Film:** Promotes ease of heat welding.



|                        |
|------------------------|
| <b>Component</b>       |
| <b>M</b><br>Membrane   |
| Multi-Ply              |
| <b>Type</b>            |
| <b>CS</b><br>Cap Sheet |
| <b>FL</b><br>Flashing  |



**Colors:** White and Black are standard. Additional colors are available, please contact your sales representative.

**System Compatibility** This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

| Multi-Ply | BUR |    | APP |    | SBS |    |    |    |
|-----------|-----|----|-----|----|-----|----|----|----|
|           | HA  | CA | CA  | HW | HA  | CA | HW | SA |

*Compatible with the selected Multi-Ply systems above*

| Single Ply | TPO |    | PVC |    | EPDM |    |
|------------|-----|----|-----|----|------|----|
|            | MF  | FA | MF  | FA | MF   | BA |

*Do not use in Single Ply systems*

**Key:** HA = Hot Applied CA = Cold Applied HW = Heat Weldable SA = Self Adhered MF = Mechanically Fastened FA = Fully Adhered BA = Ballasted

### Energy and the Environment

| Test                                    | Initial | 3-Year Aged |
|---|---------|-------------|
| Reflectivity* (ASTM C 1549)             | 0.26    | 0.27        |
| Emissivity* (ASTM C 1371)               | 0.87    | 0.84        |
| Solar Reflectance Index* (SRI) - E 1980 | 25      | 25          |
| Pre-consumer Recycled Content           | 0%      |             |
| Post-consumer Recycled Content          | 0%      |             |

### Peak Advantage® Guarantee Information

| Systems              | Guarantee Term |
|----------------------|----------------|
| Dependent on system* | Up to 20 years |

\*Contact JM Technical Services for specific system requirements or guarantee terms.

### Codes and Approvals



• UL Class A ratings may be obtained in numerous constructions, both new and re-roof at slopes up to 1" per foot (83 mm/m).

Refer to the Safe Use Instructions and product label prior to using this product. The Safe Use Instructions are available by calling (800) 922-5922 or on the Web at [www.jm.com/roofing](http://www.jm.com/roofing).

### Product Application



Heat Weld

Refer to JM APP modified bitumen specifications and detail drawings for application and slope information.

### Packaging and Dimensions

|                     |  |
|---------------------|--|
| Roll Width          | 39 3/8" (1 m)                              |
| Roll Length         | 32' 10" (10.01 m)                          |
| Roll Coverage*      | 95.8 ft <sup>2</sup> (8.9 m <sup>2</sup> ) |
| Roll Weight         | 112 lb (50.8 kg)                           |
| Rolls per Pallet    | 20   |
| Pallets per Truck** | 22   |

\*Assumes a 4" side lap.

\*\* Assumes a 48' flatbed truck.

**Meets the requirements of ASTM D 6222, Type I, Grade G**

**Tested Physical Properties**

| Physical Properties |  | ASTM Test Method        | Standard for ASTM D 6222, Type I, Grade G | APPEX 4.5M FR  |                           |                  |
|---------------------|--|-------------------------|---|--|---------------------------|------------------|
|                     |  |                         |   | MD*  | XMD**                     |                  |
| Strength            | Tear Resistance @ 73.4° F  |                         | D 4073 / 5147                             | ≥ 70 lbf   | 146 lbf                   | 97 lbf           |
|                     | Peak Load at 0°F (-18°C)   |                         | D 5147                                    | ≥ 60 lbf/in-width  | 133 lbf/in-width          | 107 lbf/in-width |
|                     | Peak Load at 73.4°F (23°C)   | Unconditioned           | D 5147                                    | ≥ 50 lbf/in-width  | 102 lbf/in-width          | 69 lbf/in-width  |
|                     |  | 90-Day Heat Conditioned | D 5147 / 5869                             | ≥ 50 lbf/in-width  | 102 lbf/in-width          | 67 lbf/in-width  |
| Longevity           | Low Temp. Flexibility @ 180° F Mandrel (Pass-Fail)   | Unconditioned           | D 5147                                    | Pass @ 32° F "none of the specimens show cracking"                       | Pass                      |                  |
|                     |  | 90-Day Heat Conditioned | D 5147 / 5869                             |  | Pass                      |                  |
|                     | Low Temperature Unrolling (Pass-Fail) Unroll in 4-6s; Visual Inspection in "unrolled" position |                         | D 5636                                    | Pass @ 41° F "none of the specimens show cracking"                       | Pass                      |                  |
|                     | Compound Stability - 2 hr 15 min @ 230° F (Pass-Fail)  |                         | D 5147                                    | Pass "no failures showing signs of flowing, dripping, or drop formation" | Pass                      |                  |
|                     | Granule Loss   |                         | D 4977/5147                               | 2 g (0.07 oz)  | 0.9 g (0.03 oz)           |                  |
|                     | Thickness  |                         | D 5147                                    | ≥ 160 mils   | 163 mils                  |                  |
|                     | Bottom Coating Thickness   |                         | D 5147                                    | ≥ 30 mils  | 44 mils                   |                  |
|                     | Water Absorption - water by distillation   |                         | D 5147 / 95                               | ≤ 3.2 %  | 0.6%                      |                  |
|                     | Moisture Content - water by distillation   |                         | D 5147 / 95                               | ≤ 1 %  | 0.2%                      |                  |
|                     | Ultimate Elongation at 73.4°F (-18°C)  |                         | D 6222                                    | ≥ 30 %   | 51%                       | 59%              |
|                     | Elongation at Peak Load @ 0° F   |                         | D 5147                                    | ≥ 10 %   | 12%                       | 10%              |
|                     | Elongation at Peak Load @ 74.4° F  | Unconditioned           | D 5147                                    | ≥ 23 %   | 49%                       | 56%              |
|                     |  | 90-Day Heat Conditioned | D 5147 / 5869                             | ≥ 23 %   | 41%                       | 32%              |
| Installation        | Dimensional Stability - 24 hr @ 176° F   |                         | D 5147 / 1204                             | ≤ 1 %  | 0.20%                     | 0.10%            |
|                     | Net Mass per Unit Area   |                         | D 146                                     | ≥ 85 lb/100 ft <sup>2</sup>  | 94 lb/100 ft <sup>2</sup> |                  |

\*MD = Machine Direction

\*\*XMD = Cross-Machine Direction

Note: All data represents tested values.