



**1. General**

- 1.1. Medium efficiency panel filter shall be Poly Shield XI Panel as manufactured by Fiber Bond Corporation.
- 1.2. Sizes shall be noted on supporting materials.

**2. Construction**

- 2.1. Panel filter media shall be polyester fiber bonded with a composite binder to provide a media that exhibits high strength and durability.
- 2.2. The panel filter shall consist of three distinct filtration densities for maximum depth loading to optimize service life.
- 2.3. The air entering side of the panel is white. The air exiting side of the panel is purple to ensure correct installation.
- 2.4. The panel filter shall contain an internal wire support grid that is  $3/4"$  under nominal panel size and sealed within the media.
- 2.5. The perimeter of the internal wire grid shall be constructed of 9 gauge wire. Where applicable, 11 gauge cross wires shall be used for additional support.
- 2.6. To prevent bowing and fluttering of the filter while in use, most filter sizes shall have four internal seals of at least 60 inches in combined length. When the filter has a dimension of 16 inches or less the four internal seals shall have a combined length of at least 30 inches.
- 2.7. The panel filter shall have a nominal thickness of 1.5".

**3. Performance**

- 3.1. The panel filter shall contain non-drying Dustlok Composite Adhesive on the air leaving side to effectively capture, hold and absorb particulate from the airstream.
- 3.2. The panel filter shall be MERV 11 in accordance with ASHRAE 52.2-2012 M, when tested at 492 fpm.
- 3.3. The panel filter shall have a typical initial resistance of 0.45" w.g. at 492 fpm. The recommended final resistance shall be 1.0" w.g.
- 3.4. The panel filter shall contain SPOR-AX®, a non-water soluble antimicrobial biocide that does not support the growth of microbes. This antimicrobial shall be applied during the production of the media and not a post application.
- 3.5. The panel filter shall withstand operating temperatures up to 200° F.
- 3.6. The panel filter shall be UL900 Classified by Underwriters Laboratories as to flammability.