



technical bulletin

**Asphalt Roofing
Manufacturers Association**

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Aggregate Retention Enhancement for Built-Up Roofing in Extreme Wind Zones

The use of aggregate surfaced built-up roofing systems has been a time proven roofing design option. Roof designers must, nevertheless, consider all variables and application techniques before specifying this type or any other type of roofing system.

The variables which closely affect a low-slope roofing system's ability to retain its aggregate surfacing include: building height and geometry, parapet height, the type of terrain surrounding the building, extreme wind conditions, climate at the building site and material application.

The Asphalt Roofing Manufacturers Association recommends the following design options when specifying an aggregate surfaced built-up roofing system in areas with extreme wind conditions as defined by applicable local building codes.

- The aggregate specified should conform to ASTM D 1863 “*Standard Specification for Mineral Aggregate Used on Built-Up Roofs.*”
- Design all parapet walls and/or wind screens at the top perimeter of the building to minimize roof top aggregate loss.
- Specify a “double” application of both the aggregate and the pour coat. After each application, be sure to remove all loose aggregate from the roof.

Note: Due to the additional weight of the second bitumen and aggregate surfacing layer, special consideration should be given to the structural design of the roof deck as well as the potential for bitumen migration or slippage.

For more information on built-up roofing systems, contact the ARMA office at (301) 348-2002.

Note: These recommendations were prepared by and have the approval of the Asphalt Roofing Manufacturers Association for informational purposes only. They are not intended to revoke or change the requirements or specifications of the individual roofing material manufacturers or local, state and federal building officials that have jurisdiction in your area. Any question, or inquiry, as to the requirements, or specifications of a manufacturer, should be directed to the roofing manufacturer concerned.