



## **NOTES FOR BRM6 BALLAST REQUIREMENTS TABLE**

6. The tabulated wind velocities resulting in sliding ( $V_s$ ) are based on a factor of safety equal to 1.0 and a coefficient of friction equal to .50. A 1.0 factor of safety was used assuming that at higher wind velocities, safety cables or other suitable attachments to the support structure would prevent sliding beyond a safe, designated area. Wind velocities are given for 0, 20 and 40 degree antenna elevation angles. The appropriate coefficient of friction and factor of safety to determine wind velocities resulting in sliding must be determined on an individual site basis. The coefficient of friction may vary under changing moisture and temperature conditions. The minimum coefficient of friction must be used to evaluate sliding resistance.
7. The values of  $V_s$  indicated do not apply for installations which are prevented from sliding by cables or other suitable attachments to the supporting structure. Attachments to the supporting structure, under such conditions, must resist the portion of wind load which exceeds the frictional sliding resistance of the mount.
8. Refer to sheets 4, 5, and 6 for assistance in determining  $V_{max}$  and  $V_s$  for specific wind load coefficients and/or other factors of safety and coefficients of friction.
9. Roof pads are recommended to prevent damage to roof membranes. Pads should be placed under all ballast panels and under the mast pipe. The minimum coefficient of friction must be considered for calculating the wind velocities resulting in sliding. When roof pads are utilized, the surface between the ballast panels and the roof pads and the surface between the roof pads and the supporting surface must both be considered.
10. Rohn recommends that ballast material always be placed prior to mounting the antenna and that roof pads and mount be secured to prevent hazards from occurring under extreme wind loading conditions. Precautions should also be taken to prevent the inadvertent removal of ballast material after installation and to insure that ballast material is fully supported by the ballast support angles (required for ballast to be effective in resisting overturning and sliding).
11. When adhesives, sealants or pads are utilized, they must be compatible with the supporting surface. They must also be durable and have adequate strength. Precautions should also be taken to insure that damage to the supporting surface will not occur upon wind loading.
12. Adhesives and sealants must be capable of resisting shear, otherwise, they may act as a lubricant and decrease the effective coefficient of friction between the ballast panels and the supporting surface. Windward ballast panels may partially lift off at wind velocities below the maximum wind velocities indicated. Adhesives or sealants may be disturbed under such circumstances and may require repairing after major wind loading events.
13. The installation, roof material and supporting structure must be capable of withstanding all loads imposed by the antenna system. Supporting surfaces, anchors and/or safety cables must be sufficient to resist the reactions from the antenna system. The installation must meet all applicable local, state and federal requirements. Due to the many variables involved, Rohn does not accept responsibility for verifying the applicability of the BRM6 for a specific installation.