**Selection Guide for Enkadrains on Sloped Green Roofs**

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| **Roof Gradient** | **Problems** | **Solutions** | **Products** |
| Flat  <1° (<2%) | * Ponding water on roof and in growing substrate can lead to root rots, poor growth and plant failure | * Use high profile Enkadrains (0.6”) to lift growing substrate and plants above ponding water | Enkadrain 9118  Enkadrain 9120  Enkadrain 9125 |
| Low  1-5° (2-9% ) | * Sufficient fall to drain * Few ponded area may exist * No major drainage concerns | * Use regular profile Enkadrains (0.4”) to effectively convey runoff to roof drains * Use EnkaDrain&Retain for green roof designs requiring high water storage capacity | Enkadrain 9010  Enkadrain 3611  Enkadrain 3615  Enkadrain 3811  EnkaRetain&Drain 3111  EnkaRetain&Drain 3211 |
| Steep  5-20° (9-36%) | * Runoff increases with roof gradient * Water runs off too quickly on steep slope, growing substrate can become dry especially near the top of the roof * Risk of sliding of green roof materials on the roof at high gradients | * Use thin profile Enkadrains (0.25”) to slow down runoff and allow time for the rain to soak into the growing substrate * Use EnkaDrain&Retain to retain water and compensate for higher runoff * Install Enkadrain upside down or use one with 2-sided fleece to minimize sliding on steep slope roof | Enkadrain 3601  Enkadrain 3801  Enkadrain 7910  EnkaRetain&Drain 3111  EnkaRetain&Drain 3211 |
| Very Steep  >20° (>36%) | * Very high runoff due to gradient * Dry at top and wet at bottom of slope * Risk of sliding of green roof materials | * Drain layer is generally not necessary * Use thin profile drains (0.25”) if needed * Secure drainage layer to prevent sliding | Enkadrain 3601  Enkadrain 3801  Enkadrain 7910 |