TGN 24.5 [Technical Guidance Note]
Dampening in Extreme Temperatures

Where there are concerns in relation to the potential ignition of green roofs in extreme temperatures, the roof may require dampening down on a regular basis, in addition to the normal irrigation and maintenance requirements.

To determine the flow rate of water needed to dampen down the green roof, you'll first need to calculate the volume of water required to sufficiently 'wet' the soil to a depth of 80mm across the entire roof area.

The formula to calculate the volume of water needed is:

Volume = Area * Depth

For example:

Area = 110.56 m^2
Substrate depth = 80mm > 0.08m (converting mm to meters)

So, the volume of water needed is:

Volume = 110.56 m^2 * 0.08m = 8.845 m^3

To determine the flow rate, you would need to know how often you want to dampen down the green roof and over what period of time. E.g., if you want to dampen it down daily, you would divide the total volume needed by the number of days. If you want to dampen it down multiple times a day, you would divide by the appropriate number of daily occurrences.

Please note that the above information is provided for guidance purposes only.

Moy Materials Ltd recommend consultation with the Green Roof supplier and also the local Fire Officer for further clarification/confirmation, due to the number of variables and differing environmental conditions which may be present.