Aerodynamic or open profiles are the most common profiles for both suspension and post type polymer insulators and are generally acceptable in all types of environmental conditions, in both vertical and horizontal orientations. These profiles are beneficial in areas where the pollution is deposited onto the insulator by wind, such as deserts, heavily polluted industrial areas or coastal areas. They are particularly effective in climates which are characterized by extended dry periods. Open profiles have good self-cleaning properties and are also more easily cleaned if maintenance is required.

Anti-fog profiles with under-ribs provide additional protected creepage distance and are beneficial in areas with Type B pollution, such as salt fog or spray. Anti-fog profiles are in general not suited for environments with Type A pollution or in areas with long dry periods.

Alternating shed arrangements are feasible for all polymer insulator profiles. They can offer increased creepage distance per unit length with improved performance in heavy wetting conditions.