

### 3.1.3. Surface roughness coefficient

The surface roughness coefficient accounts for the effects of surface roughness in the average wind velocity and its variation with height. It is defined by the following equations :

$$\begin{aligned} \text{For } z \geq z_{\min} : \quad C_e(z) &= k_r \ln\left(\frac{z}{z_0}\right) \quad \text{with} \quad k_r = 0.23 \cdot (z_0)^{0.07} \\ \text{For } z < z_{\min} : \quad C_e(z) &= C_e(z_{\min}) \end{aligned} \quad (3.3)$$

where