INTRODUCTION
Hot-dipped zinc coatings and electrogalvanised coatings both protect steel in the same manner. However, hot-dipped zinc coatings are usually thicker and therefore offer a longer life under the same exposure conditions.

The protective life of a metallic zinc coating is essentially a function of the coating thickness. Figure 1 indicates the life to first maintenance for hot-dipped zinc coatings produced by a continuous galvanising process. This figure is calculated using the zinc corrosion rates from ISO 9223:2012 to estimate the life to first maintenance for a variety of different corrosivity categories. This methodology is adopted from Table 2 of ISO 14713-1:2017.

In general, for a particular environment the life of a zinc coating is directly proportional to the initial zinc coating mass. Similarly, a specific life to first maintenance necessitates increasing the zinc coating thickness as the corrosivity of the environment is increased from C1 to C5.

REFERENCED STANDARDS