

2016

DIAGNOSIS OF DAMAGE OF METAL STRUCTURES UNDER THE INFLUENCE OF CORROSION IN THE REGION OF DJIJEL

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Abstract : The region of Djijel is characterized by a Mediterranean climate, its winters are cold and rainy unlike its autumns. It is also famous for its dry summers with a temperature ranging between 20 °C and 35 °C in summer, and average relative humidity of the air is high and can reach about 70%. Several physical and chemical damages were observed on the metal structures implanted in the Djijel region, these changes have directly affected their sustainability, such as: corrosion of steel profiles or reinforced concrete frames, cracks or/and coating bursting under the effect of alkali-aggregate reactions or corrosion of steel. In this study, we show some pictures from damage caused by corrosion of metal structures, then we explain the main causes of corrosion of steel profiles or degradation of reinforced concrete, and finally we propose some solutions or recommendations to avoid or reduce this structural damage

Keywords : Durability, corrosion, metal structures, humidity