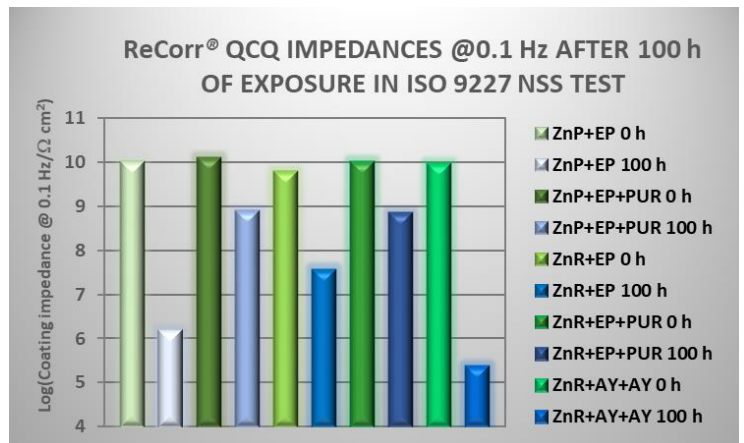
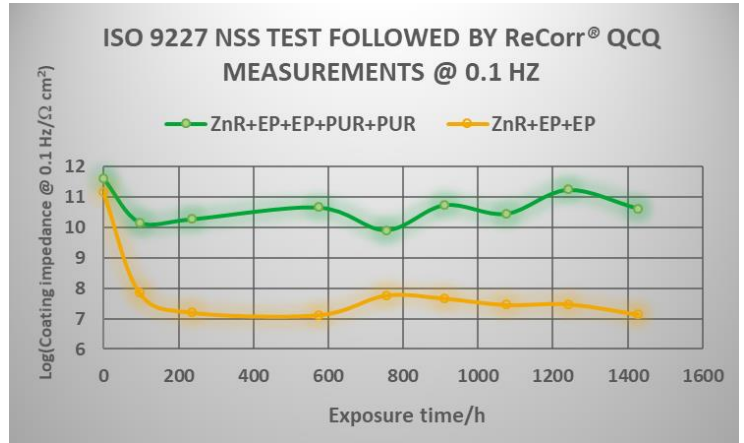


Signs of early coating degradation have been monitored by the ReCorr® QCQ during exposure of coated panels to neutral salt spray (NSS) in the ISO 9227 salt cabinet experiment that lasted for 1440 h. The tested systems were Zn (R) + EP + EP (NDFT 270 µm) and Zn (R) + EP + EP +PUR+PUR (NDFT 460 µm), intended for the protection of the coastal and offshore constructions corresponding to C5 (H) and CX corrosivity categories in accordance with EN ISO 12944. EIS has been found to give a good estimation of long term coating behaviour within the first 100 h of accelerated exposure (upper figure right). Also, the difference in impedances of the two tested systems correlated to the pull-off adhesion test results (figure below). The lower quality system shows a significant decrease in the pull-off adhesion due to exposure. Five other coating systems containing zinc phosphate - ZnP and zinc rich - Zn(R) primers, epoxide (EP), polyurethane (PU) and waterborne acrylic (AY) coats and having comparable DFTs, were then tested for 100 h in NSS (lower figure right). The order of coating quality deduced from the ReCorr® QCQ Test is Zn(R)+EP+PUR > ZnP+EP+PUR > Zn(R)+EP > ZnP+EP > Zn(R)+AY+AY showing the influence of the primers and the topcoats on the coating system quality. **It has been demonstrated that the ReCorr® QCQ Test gives an early indication of the quality of the coatings during the ISO 9227 NSS exposure.**



Zn(R)+EP+EP+PUR+PUR

BEFORE

AFTER



Zn(R)+EP+EP

BEFORE

AFTER

