
Connections between hot-dip galvanised components and stainless steel screws

When assessing the risk of corrosion in combinations of galvanised and stainless steel components, the electrochemical series shows that the galvanised part, as the less noble partner, acts as the anode, whilst the stainless steel component, as the more noble partner, acts as the cathode.

Studies have shown that, under atmospheric conditions, the combination of anodes (e.g. galvanised cable trays) with a large surface area/mass and cathodes (e.g. stainless steel screws) with a small surface area/mass is unproblematic and corresponds to the state of the art (Table 7, Information Sheet 829 'Stainless Steel in Contact with Other Materials', Stainless Steel Information Centre).

It should be noted, however, that for some construction products only certain combinations have been approved, e.g. stainless steel anchor channels with corresponding special stainless steel screws or galvanised anchor channels with corresponding special galvanised screws.