



HP- CIC (Cold Insulating Coating)

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Cold Insulating Coating for low temperature applications

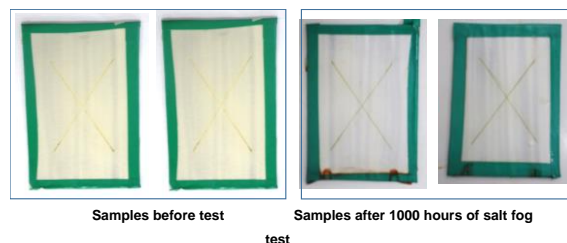
This novel product is developed in-house considering total replacement of PIR/PUF for cold insulation system. Thereby, condensation corrosion of underlying steel can be completely avoided.

Application of the thermal insulating coating can provide long-term corrosion protection, which can be applied directly on surfaces with minimal surface preparation and on areas, especially where application of insulating material is a challenge, such as recessed areas, corners etc. The coating has high adhesion bond strength ($>9\text{MPa}$) and high impact values (8.6KJ) with high wear/abrasion resistance ($0.161\text{g}/1000\text{cycles}$). The formulation is 100% solids and offers zero VOC.

The temperature difference of 28 deg. C was observed when tested at -14 deg. C for 5mm coating thickness. The product formulation, with the additives were chosen in such a way that they can provide both insulation properties and corrosion resistance. The shortlisted formulation is one with lowest possible thermal conductivity of $0.07\text{W}/\text{m}\cdot\text{k}$. It also conserves energy(heat) conservation principle when applied on assets particularly,

HVAC and chillers piping and fittings.

Photographs of HP-CIC coated panels before and after 1000hrs of salt fog test as per ASTM B117



Photograph of HP-CIC applied coating, chiller piping



The in-house developed insulating coating for low temperature services is for mitigating condensation corrosion of assets and can be used upto temperature of -20 deg. C.