

CASE

Flat roof design is literally shrouded in the roots of time as ancient examples have long collapsed such as Roman and Greek Temples where just a few columns exist today. Clearly their masonry or wood construction made sense and still does in hot, dry climates.

In developed and developing countries they are a typical features of commercial buildings where economics are the driving force or a necessity in the case of multi-storey car parks wanting to squeeze in another revenue level.

However, without regular maintenance, they can quickly fail today as even the most robust of protective materials such as large, factory-made such as EPDM synthetic rubber can fail along seams that ultimately lose their integrity. This is also the case with expensive fiberglass and conventional epoxy coatings.

Problem

In hot, sunny climates there is the constant pounding of UV rays couple with extremes of temperatures which not only evaporate any volatile contents such as those in tars weakening and cracking them, but also the effects of mechanical stress as the coatings and sheeting stretch and shrink, albeit by relatively small amounts. This leads to delamination, detachment from the base surfaces and allowing moisture or rainfall to enter.

Couple all this with any kind of traffic or exceptional events such as super freezes or heavier than normal hailstorms, then the deterioration allowing ingress of water can be a matter of weeks and not years.

This case involved a flat roof building in Naples, Florida, which was leaking with the source of the leaks not located for specific remedial work.

Solution

With the failure of conventional, protective roofing solutions, the building's operators chose Castagra's



Ecodur for its unique properties of no VOC or solvent use, extreme longevity, retained flexibility, and ability to re-bond with itself for the life of the Ecodur coating, providing proper surface preparation is done. Heavy attention was paid to seams and cracks as seen in the photos.

Application Results

Customer reported complete satisfaction. Even with the prevailing conditions of high humidity and temperature, the entire coating operation was performed without any interruptions or special need to alter the normal spraying protocols as Ecodur has an exceptional and unique ability to be applied in an extreme range of weather conditions and its 'repair-ability' as compared to conventional coatings means effective remedial work can be carried out years out into the future without major economic penalty.

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