

CIC applied to the polycarbonate rooftop of this museum to block sunlight and heat.



ACS CIC 4.0 was applied a cinderblock wall to block solar heat loading

Product: ACS CIC 4.0

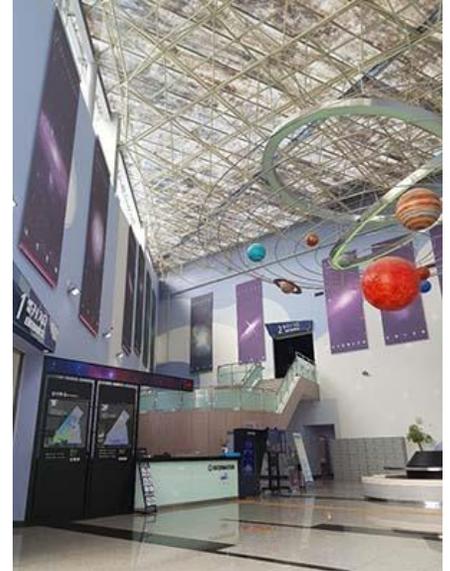
Goals: Reduce Solar Heat Load, Reduce Thermal Heat Transfer, Lower the interior temperature in the museum and lower electricity usage.

Problems:

1. The rooftop of this museum was applied with polycarbonate. Thus, sunlight penetrate through the roof and heat up the interior space of the building.
2. Workers had been suffering steamy heat during the Summer and the electricity cost were increasing after operating air-conditioner.
3. Noise due to expansion of polycarbonate
4. Impact noise due to rainfall

Purpose of Ceramic Insulation Coating on the rooftop:

1. To block solar heat load on the roof
2. Noise reduction as polycarbonate roof top expands.
3. Coated area: 380 square meters (4,090 Square Feet)
4. ACS CIC 4.0 applied in two coats for about 20 to 32 mils total.
5. 85 gallons were used for this application.
6. Application was by roller



This roof application of ACS CIC 4.0 allowed the customer to shut off 1 of 3 AC units. Since that's in the ballpark of 35-37% during the peak seasons.

As to heat retention, the 20 mils would provide some significant heat retention. We only have data on 40 mils though. That was a 40F improvement with a 68F DeltaT. So, 40 mils of CIC on a 3F temperature in a 68F room was raised to 43F.

This was the first application of CIC on rooftop sky lighting which demonstrated that there's an opaque finish that lets in light. This application is only 20 mils to 32 mils DFT. The lifespan should be 12 years plus. Once CIC was applied, re-coating will be easy.

