

City Pool Overflow Basin

- Category: Chemical Resistance
- Customer: The City of Houston, Texas
- Project: Install a monolithic, chemical-resistant containment solution for failing concrete pool water overflow basin.
 - Products: HiChem™ 11-70, Primer 251, Moisture Guard



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- Problem The City of Houston operates 37 outdoor pools that are open during summer months. Years of contact with pool water and chemicals had caused leaks in a 40,000 gallon capacity, subgrade, concrete overflow basin at one of its pools. The basin is housed within a larger building containing operational equipment that also had shown signs of wear and damage due to the continuous exposure to pool water. The pool was shut down for the 2015 season to avoid additional costly



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Solution

- Global Coat, an authorized Rhino Linings® applicator in Baytown, Texas, was called to provide a long-term waterproofing solution that would keep operations running smoothly for years to come. The City of Houston required Global Coat to source a 100% solids material to align with a city wide initiative to reduce Houston's carbon footprint, minimizing volatility and off-gassing in all projects. Global Coat selected Rhino Linings HiChem 11-70, a 100% solid, zero-VOC polyurea-based lining, for the job because of its excellent chemical and corrosion resistance, high tensile strength and dense, impermeable chemical structure. The overflow basin was 20 ft. long by 15 ft. wide by 18 ft. deep and composed of poured concrete with extruding pipes. First, the entire basin was abrasively hydro-blasted to remove contaminants and prepare the surface for an ideal bond. The applicator sub-contracted DeHumidification Technologies, LP, a provider of dehumidification and temperature control services and equipment used to depress the dew point and control humidity in the naturally damp space.
- Once the concrete surface and application area was sufficiently prepped, Global Coat began by applying Rhino Linings Moisture Guard, a penetrating primer that creates a moisture-resistant barrier. The next day, 5 mils of Primer 251 was roller-applied. Primer 251 is a flexible polyurethane primer and sealer that offers good resistance to acids, hydrolysis and salt.



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- Results During the final walkthrough, the application received high praise from the local supervisor for the City of Houston. The application was immediately tested by a record setting rain and no leaks were detected for the first time in years. The City of Houston is so pleased with the results they have started planning for Rhino Linings® products to be applied in overflow basins at some of their other 36 locations.



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