Abstract

Defects in wet areas such as toilets and bathrooms are often aesthetically unpleasing and disgusting. This cause much inconvenience to the users. More often than not, the bulk of the defects found in these areas can be attributed to water leakage. In Singapore where high rise residential estates are common, the problem of leakage at ceilings and floors is compounded even further when leakage comes from the unit above.

Many defects can be attributed to poor design detailing and construction workmanship. To enhance the water tightness performance of the internal wet areas of buildings, it is vital to look at how the waterproofing membrane is detailed and installed.

This research seeks to examine the watertightness of the waterproofing system. This research looks into the various waterproofing systems commonly used in the local industry and their properties. It also investigates the various sources of defects resulting from the failure of waterproofing system through specific case studies. This study takes a step further into recommending some good practices in design detailing and construction practices to achieve a watertight system.

Key words: (Building defects, durability, high rise buildings, internal wet areas, maintainability, waterproofing, Singapore)