

Detailed Diagnostic Report (DDR)

Inspection Date: 27.09.2022

Inspected By: Krushna & Mahesh

Property Type: Residential Flat (11 Floors)

Status: 85.71% Completion with flagged items

1. Property Issue Summary

The inspection of Flat No. 103 revealed significant moisture-related issues across multiple functional areas, including the hall, kitchen, bedrooms, and common bathroom. The primary concern is persistent dampness at the skirting levels and tile hollowness, which correlates with thermal anomalies (cold spots) ranging from 20.1 °C to 23.4 °C. Additionally, external wall cracks and plumbing leaks are contributing to seepage in the parking area below the unit.

2. Area-wise Observations

Location	Site Observations (Physical)	Thermal Findings (IR Analysis)
Hall	Observed dampness at the skirting level.	Coldspot detected at 23.4 °C (Image 1).
Common Bathroom	Tile hollowness; gaps in tile joints; plumbing issues.	Coldspot detected at 22.4 °C (Image 2).
Master Bedroom	Skirting level dampness and wall efflorescence.	Coldspots between 20.5 °C and 22 °C (Images 3-5).
Kitchen	Significant skirting level	Coldspot detected at 20.7

	dampness.	°C (Image 4).
Parking Area	Active seepage from the ceiling below Flat 103.	Thermal imaging confirms widespread moisture migration.
External Wall	Moderate cracks and duct issues observed.	Not explicitly detailed in the thermal log.

3. Probable Root Cause

- **Concealed Plumbing Failure:** The site report confirms leakage due to concealed plumbing and damaged Nahani traps/brickbat coba under the tile flooring.
- **Structural Permeability:** Moderate cracks on the external RCC columns and beams, combined with open tile joints, are allowing water ingress into the substrate.
- **Capillary Action:** Skirting level dampness across the hall and bedrooms suggests moisture is traveling horizontally through the floor screed due to poor waterproofing in the wet areas.

4. Severity Assessment

- **Rating: High**
- **Reasoning:** The issues are "All time" leakages, meaning they are constant and not weather-dependent. The presence of efflorescence indicates that moisture is already leaching minerals from the structure, and the seepage in the parking area poses a risk to the building's RCC members and secondary assets (vehicles).

5. Recommended Actions

1. **Waterproofing Repairs:** Remove hollow tiles and re-lay them using proper waterproofing compounds. Address the gaps in Nahani trap joints and tile grout.
2. **Plumbing Rectification:** Pressure test concealed lines and repair loose plumbing joints in the WC and bathroom areas.
3. **External Remediation:** Grout and seal moderate cracks on the external wall and around window frames to prevent further ingress.
4. **Structural Monitoring:** Given the "moderate" condition of RCC members, a structural consultant should verify the impact of long-term seepage.

6. Additional Notes

- The property has no history of previous structural audits or repair work, suggesting these

issues have likely been developing for some time.

- The thermal images were captured with a Bosch GTC 400 C Professional device using an emissivity setting of 0.94.

7. Missing or Unclear Information

- **Expansion Joints:** Condition is marked as "N/A" (Not Available) in the inspection form.
- **AC Frames/Drain Pipes:** Specific condition of wall-mounted AC holes was not recorded.
- **Specific Paint Manufacturer:** The existing paint type was noted as "Not sure".