EPOXY FLOORING SYSTEM FOR PARKING AREAS WITH MODERATE TO LIGHT VEHICLE LOAD

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Introduction

Parking areas designed for **light to moderate vehicle loads,** such as passenger cars and service vehicles, require a flooring system that offers **mechanical durability, abrasion resistance, and chemical tolerance,** while also maintaining a **clean, safe, and visually appealing surface.**

The **Epoxy Flooring System for – Parking Areas with Moderate to Light Vehicle Load is a medium-duty, high-build epoxy flooring solution** designed to perform effectively under consistent vehicular movement, tire friction, and mild exposure to automotive fluids. It combines **durability, easy maintenance, and a smooth finish** that enhances the overall look and functionality of covered parking spaces.

Important Note: Epoxy flooring systems for parking areas are generally **recommended for covered or partially covered spaces** where **UV exposure is minimal or non-existent.**

For **areas exposed to direct sunlight,** such as open rooftop or outdoor parking zones, epoxy coatings may **yellow or discolor over time** due to UV sensitivity.

If **discoloration is not a concern**, this system can still be used; however, for long-term color stability, a **UV-resistant polyurethane topcoat system** is recommended as an alternative.

Recommended Use Cases

- Basement and multi-level parking areas
- Covered residential and commercial parking spaces
- Building podium parking decks
- Visitor and service vehicle parking areas
- Light circulation zones in institutional and retail parking facilities

Step-Wise System Description

Step 1: Surface Preparation

Proper substrate preparation is crucial to ensure adhesion, longevity, and performance of the epoxy flooring system.

All necessary surface repairs, including crack filling or substrate restoration, must be completed prior to the application of any epoxy flooring materials. Ressichem offers a range of suitable crack fillers and repair compounds, including non-shrink cementitious grouts, specifically designed for surface preparation and repair.

- Mechanically grind or shot blast the surface to remove contaminants, laitance, and weak layers.
- Repair all surface imperfections using Ressichem epoxy crack fillers.
- Thoroughly clean and vacuum the surface to eliminate dust and debris.
- Verify that substrate moisture content is **below 5%** prior to primer application.

Step 2: Application of Ressi EPO Primer LV

Apply **Ressi EPO Primer LV,** a low-viscosity, solvent-free epoxy primer that ensures deep substrate penetration and excellent bonding strength.

- Mix resin and hardener components in the prescribed ratio.
- Apply uniformly using a roller or brush, avoiding puddles or excess build-up.
- Allow adequate curing time based on temperature and humidity before proceeding to the next layer.

Step 3: Application of Ressi EPO Mid Coat S – GP (Optional)

Apply **Ressi EPO Mid Coat S – GP** where additional levelling or build thickness is required.

- Apply at a **minimum of 1000 microns, with 2000 microns recommended** for optimum mechanical resistance and smoothness.
- Use a notched trowel or squeegee to spread evenly, then back-roll to remove trapped air.
- Allow overnight curing before applying the final topcoat.
- This step is **optional**, depending on the substrate condition and levelling needs.

Step 4: Application of Final Epoxy Topcoat

Apply **Ressi EPO Tough Might** or **Ressi EPO Floor Plus,** depending on whether a mid coat is used.

- If **Ressi EPO Mid Coat S – GP** is used, apply **Ressi EPO Tough Might at 1000 microns.**
- If no mid coat is used, apply **Ressi EPO Floor Plus** at **2000 microns minimum.**
- Apply using a roller or flat squeegee for a smooth, uniform finish.
- Allow **48–72 hours** before allowing light vehicle traffic and **7 days** for full curing.

Step 5: Floor Markings (If Required)

For traffic direction, parking bay demarcations, or safety lines, apply **Ressi EPO Gloss Might** in contrasting colors.

- Apply only after the epoxy basecoat has fully cured.
- Use masking tape for crisp, accurate edges.
- For **cost-effective installations, Ressi EPO Roll Coat** may also be used for line marking or color zoning.

Note:

- The **total system thickness must be a minimum of 2000 microns** for sufficient durability under vehicular loading.
- For **UV-exposed areas,** the use of this system may lead to **color change (yellowing)** over time. Consider UV-resistant topcoats if color retention is a requirement.
- Always refer to **Technical Datasheets (TDS)** for detailed product guidance before installation.

ریسیکیم®
مضبوطی اور پائیداری کے لئے
D-83, S.I.T.E., Industrial Area, Manghopir Road, Karachi - 75530, Pakistan
UAN: +92-21-32593800-02 Ph: +92-21-32593800-02 +92-309-7772464
www.ressichem.com

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System Advantages

- **Durable and Long-Lasting:** Withstands continuous vehicle traffic and tire friction.
- **Chemical Resistant:** Protects against mild oil, grease, and fuel contamination.
- **Smooth and Reflective Finish:** Enhances visibility and aesthetics in parking zones.
- **Customizable System Thickness:** Optional mid coat allows flexibility in performance.
- **Low Maintenance:** Easy to clean and maintain for extended service life.
- **Versatile Marking Options:** Allows customized zoning, directional arrows, and safety lines.
- **Best Suited for Covered Areas:** Excellent performance where UV exposure is minimal.

Maintenance Guidelines

- Clean floors regularly with neutral cleaning agents or mild detergents.
- Avoid harsh chemicals or abrasive cleaning tools.
- Inspect and recoat high-traffic lanes as needed.
- Ensure proper drainage to avoid standing water and chemical accumulation.

System Summary Table

Parameter	Description
System Name	Epoxy Flooring System for – Parking Areas with Moderate to Light Vehicle Load
Area Type	Indoor / Covered Parking Zones
Traffic Exposure	Light to Medium Duty (Passenger Cars, Light Service Vehicles)
Primary Requirements	Mechanical Strength, Abrasion Resistance, Mild Chemical Resistance
Primer	Ressi EPO Primer LV
Mid Coat (Optional)	Ressi EPO Mid Coat S – GP (1000–2000 microns)
Topcoat	Ressi EPO Tough Might (with Mid Coat) / Ressi EPO Floor Plus (without Mid Coat)
Marking Coat (Optional)	Ressi EPO Gloss Might or Ressi EPO Roll Coat (Contrasting Colors)
Total System Thickness	Minimum 2000 Microns
Finish Type	Smooth, Gloss or Semi-Gloss
Curing Time Before Use	48–72 Hours for Light Traffic / 7 Days Full Cure
UV Resistance	Recommended for Covered Areas; May Yellow in Sunlight
Key Benefits	Durable, Chemically Resistant, Seamless, Easy to Clean, Cost-Effective

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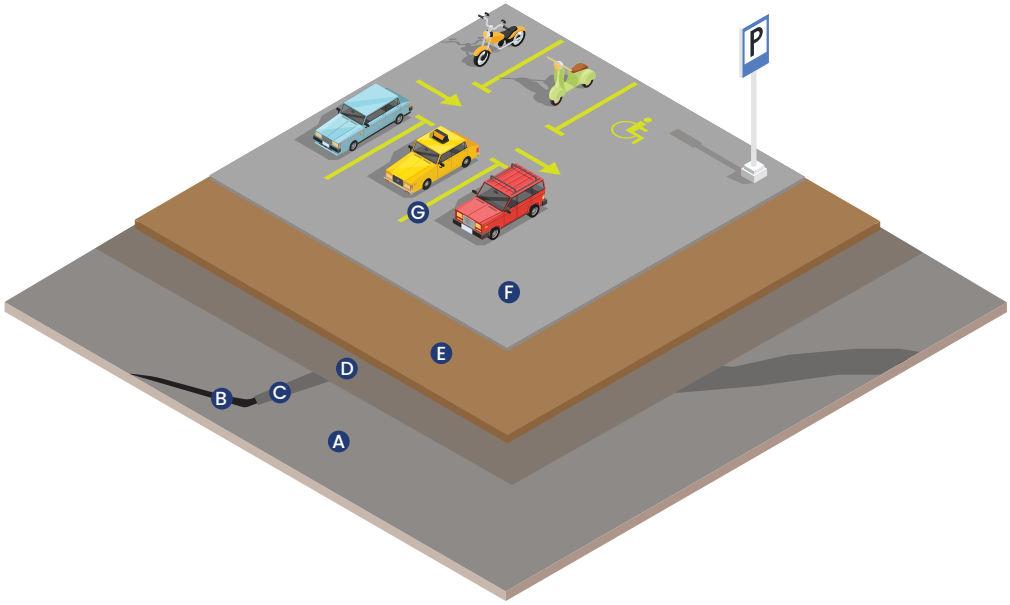
Conclusion

The **Epoxy Flooring System for – Parking Areas with Moderate to Light Vehicle Load** is a **versatile, durable, and cost-effective flooring solution** ideal for covered parking spaces and moderate traffic areas.
Its sequence — **Surface Preparation, Ressi EPO Primer LV, (Optional) Ressi EPO Mid Coat S – GP, Ressi EPO Tough Might or Ressi EPO Floor Plus, (Optional) Ressi EPO Gloss Might or Ressi EPO Roll Coat** — ensures **strong adhesion, mechanical resilience, and an attractive appearance** suitable for a wide range of parking environments.
For **outdoor or UV-exposed parking areas,** users should note that epoxy systems **may discolor over time**. If aesthetics are not a priority, this system can still be applied effectively. Otherwise, a **UV-stable polyurethane topcoat** should be used to maintain long-term appearance.

System Summary



A) Cementitious Surface: (Concrete slab or screed)
B) Cracks and surface damage
C) Crack Filler and Repairing Materials
D) Ressi EPO Primer LV
E) Ressi EPO Mid Coat S – GP
F) Ressi EPO Tough Might / Ressi EPO Floor Plus
G) Ressi EPO Gloss Might / Ressi EPO Roll Coat (Marking)