

**Plexipave[®]****GROUP KONZEPT**CRACK REPAIR AT A
PRIVATE COURT IN MONTENEGRO

BACKGROUND

A private sport court in Reževići experienced persistent structural cracking caused by construction-related subsidence and foundational instability. The cracks were visible not only on the asphalt surface but also on adjacent concrete retaining walls, highlighting the severity of the issue. Over the years, multiple repair methods were trialed—without lasting success. These included:

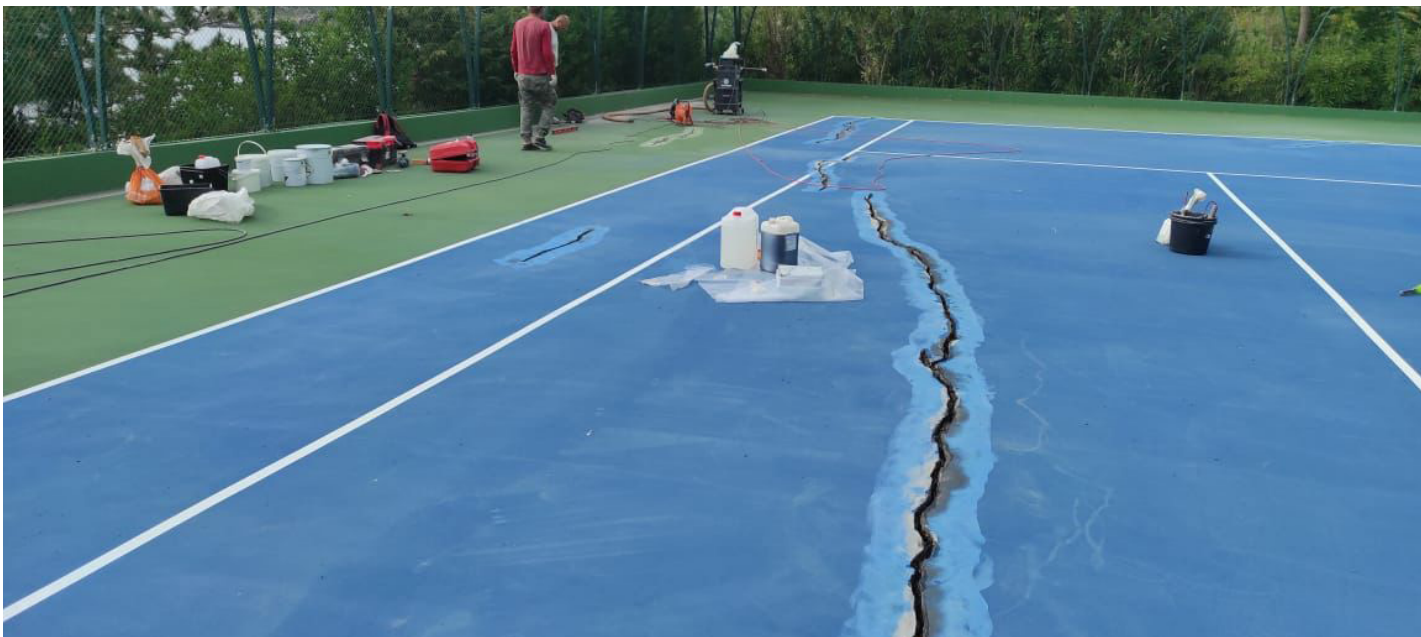
- **Court Patch Binder** – Provided only temporary repair before cracks reappeared.
- **Two-component PU adhesive** – While flexible, it led to surface issues due to seasonal temperature fluctuations: the adhesive would depress in cold weather and rise above the surface in heat, causing visible distortion and performance concerns.

**MAY 2023**

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REPAIR STRATEGY

The contractor implemented a new method using a **rigid epoxy-sand mortar**. Here's a breakdown of the repair process:

1. **Crack Preparation:** All structural cracks were widened to 2 cm and deepened to 3 cm.
2. **Base Sealing:** To prevent epoxy loss, the bottom of each crack was sealed using low-expanding PU foam.
3. **Epoxy Application:** The cracks were filled with epoxy mortar and allowed to cure. Once cured, the surface was ground flush with the surrounding court.
4. **Resurfacing:** The entire surface was coated with two coats of Plexipave Ultra Performance color, mixed with sand-filled Color Base, as per standard CSS system recommendations.



OUTCOME

The performance of this epoxy-based approach is being monitored over time, but early results are promising compared to previous methods.

Additional Experiment: Crack Tape Isolation

A second technique was tested on a separate client's court where old asphalt had been patched with new material—another known weak point where cracking occurs.

1. **Tape Isolation Method:** The junction between new and old asphalt was covered with tape bonded only along the crack using two-component PU adhesive. A 2 cm margin on either side was left unglued so the tape could “float,” minimizing stress transmission to the acrylic surface above.
2. **Finish:** Several coats of AR were applied over the tape, followed by full-court resurfacing.



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