KOVALUS Separation Solutions™

CASE STUDY

Camping Sandaya Cypsela Resort (OEM: Corpi SL, Spain)

Overview

Camping Sandaya Cypsela Resort is a premium holiday campsite operated by Groupe Sandaya, located in Girona, Catalonia, Spain. Sandaya is among Europe's largest outdoor hospitality groups, known for operating upscale 4- and 5-star camping resorts across France and other European destinations.

As demand for high-quality holiday accommodation continues to grow, the Cypsela Resort entered a major expansion phase to increase bungalow capacity. That growth placed new requirements on the site's wastewater treatment infrastructure.

The resort originally operated a conventional wastewater treatment plant. However, with the planned capacity increase, the biological reactor volume was no longer sufficient to reliably support full nitrification and denitrification. The secondary clarifier, designed for settling rather than biological treatment, limited the plant's ability to meet future effluent quality and reuse expectations.

To resolve these constraints and support expansion, the decision was made to remodel the existing plant into a membrane bioreactor (MBR) system. As part of the retrofit, the secondary settling tank was converted into an anoxic tank, enabling denitrification while maximizing available volume, and a dedicated membrane tank was added to complete the MBR process.

Objective

The primary goal of the renovation was to produce ultrafiltered effluent suitable for reuse in garden irrigation. The upgraded plant needed to comply with Spanish Royal Decree 1085-2024, which sets strict quality standards for treated wastewater intended for reuse.

Key Highlights

PURON® membranes enable smart MBR retrofits, safe water reuse, and reliable operation

1. PURON membranes enabled safe, regulation-compliant water reuse (RD 1085/ 2024 compliant)
2. MBR retrofit maximized existing assets and plant footprint
3. PURON membranes ensured stable operation under seasonal peak loads

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Solution

Kovalus Separation Solutions (KSS) supported Corpi SL and the end user by supplying PURON membrane technology for the new MBR configuration.

For an average daily / design flow of **975 m³/day**, the upgraded treatment plant was equipped with:

- **Three (3) x PURON LE 16-16 membrane modules**
- **Total installed membrane area: 2,088 m²**
- **System commissioning: April 2025**

This configuration provided the filtration capacity required for peak-season resort loads while enabling stable biological performance through the newly expanded anoxic volume. The result is a compact, high-quality reuse-ready effluent solution aligned with the resort's sustainability and growth targets.

Operation Experience

KSS was selected based on proven performance and OEM confidence. Corpi SL has longstanding positive experience with PURON membranes, supported by strong operational results from previous MBR installations — including other campsite projects with similar seasonal flow patterns and reuse requirements.

This track record validated KSS membranes as a low-risk, high-reliability choice for the Cypsela retrofit and ultimately drove the decision to install Kovalus membranes for the upgrade.

Takeaways

With the final MBR solution in place, Camping Sandaya Cypsela Resort is now consistently meeting discharge and reuse parameters required for irrigation water. The upgrade directly supports local water conservation priorities by enabling safe reuse of treated wastewater on-site.

This project demonstrates KSS' strengths in:

- **MBR retrofit and expansion projects** where footprint and existing tank volumes are limiting
- **Hospitality/campsite applications** with high seasonal variation and growing reuse expectations
- **Delivering reuse-compliant effluent** under evolving European and Spanish regulatory frameworks

Ultimately, the Cypsela Resort renovation shows how KSS membrane systems help premium leisure destinations expand sustainably while protecting local water resources.

KOVALUS Separation Solutions™

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