

Laundry – Shallow Shell™ Technology



Background

ITU AbsorbTech (ITU) is a leading provider of industrial laundry services committed to zero-waste solutions that support the environment. ITU was in pursuit of innovative technologies to improve operations within its water treatment processes while ensuring sustainable practices. In working with the Purolite® team, ITU improved its softening system operations, resulting in cost savings and reinforcing its commitment to environmental stewardship with Shallow Shell™ Technology (SST).

Solution

Purolite's SST resins provide outstanding performance in water purification applications, offering increased capacity and faster kinetics to help improve the resin's life. SST's unique feature is the inert core, which allows for more efficient regeneration cycles – resulting in less water and regenerant chemical use. The more efficient regenerations yield higher operating capacity and provide for longer service cycles.

By replacing ITU's previous softening resin with SST, they realized an additional 75,000 gallons of water production between regenerations. With an optimized regeneration procedure, ITU reduced annual salt consumption by 46%. Alongside the savings in salt and water, ITU emitted less chloride and reduced labor costs spent operating the regeneration process.

Conclusion

ITU's collaboration with Purolite demonstrated its dedication to leveraging SST resin for water treatment needs. By implementing this advanced technology, ITU successfully addressed its wastewater challenges, achieving improved efficiency, cost savings, and environmental benefits. The ITU case study exemplifies how companies can embrace innovative solutions to enhance operations and contribute to a more sustainable future.

ANNUAL SAVINGS



SERVICE CYCLES

2.5x longer



WASTEWATER DISCHARGE

73% less



WATER SAVINGS

593,000 gal/year



PRODUCTIVITY

+800 hours gained



TOTAL VALUE DELIVERED

+\$33,245 year



eROI DELIVERED

1,108%

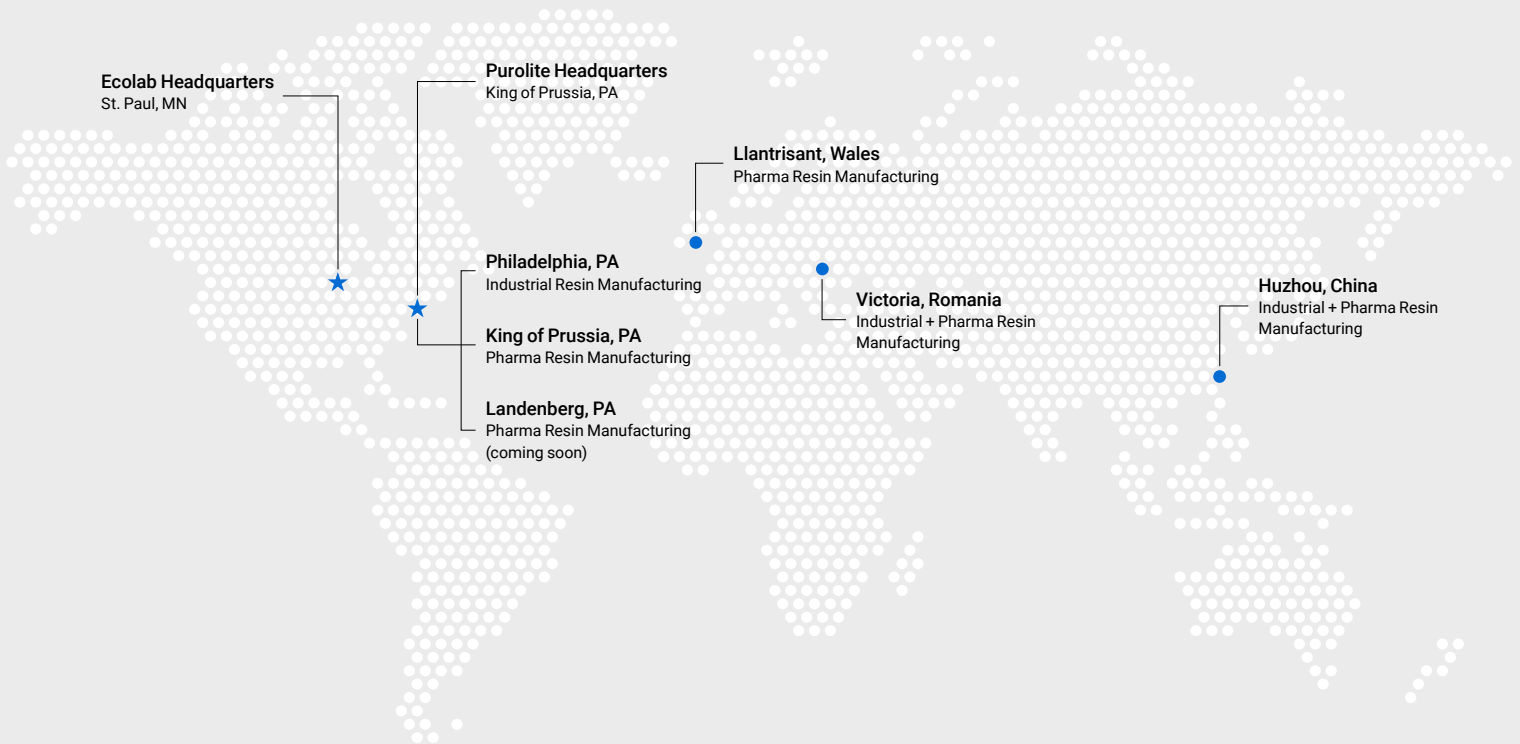


Purolite[®]
An Ecolab Company

Purolite, an Ecolab company, is a leading manufacturer of quality ion exchange, catalyst, adsorbent and specialty high-performance resins with global sales support.



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We're ready to solve your process challenges.

For further information on Purolite products and services, visit www.purolite.com or contact us at the addresses below.

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P-000284-NPOLD-0124-ENG-PCO