

CETCO's New RESISTEX® Universal Geosynthetic Clay Liner Series Unveiled at GeoAmericas 2020

BETHLEHEM, PA - November 11, 2020 - At this year's GeoAmericas 2020 conference, CETCO paid homage to the event's [GeoAmericas 2020](#) motto, "Geosynthetics Solutions for a Fast-Changing World", by introducing its innovative GCL line extension, the RESISTEX® Universal GCL series.

As a new class of polymer modified GCLs that will be added to CETCO's existing [RESISTEX® GCL family](#), the RESISTEX® Universal GCL series offers world-class performance against calcium chloride (CaCl_2). CETCO can now offer customers a comprehensive portfolio of solutions to address a wide spectrum of leachates.

Designed to withstand medium to high strength leachates, including coal ash, high pH mining leachates, and low pH mining leachates, the series includes RESISTEX® U40 GCL, RESISTEX® U60 GCL, and RESISTEX® U80 GCL. Each product variation is distinguished by its polymer content.

By reducing the effects of ion exchange and offering lower hydraulic conductivity against aggressive groundwater chemistries, the RESISTEX® Universal GCL series is an important addition to the existing product line with its proven performance against aggressive leachates. This includes increased swelling and sealing capabilities and robust chemical resistance to aggressive leachates at higher effective stresses post-ion exchange.

To validate the performance power of the RESISTEX® Universal GCL series against CaCl_2 , a team of CETCO researchers investigated the influence of polymer loading on hydraulic conductivity before and after ion exchange to determine the optimal polymer content. The study was intended to examine the performance limits of several new polymer modified GCLs (PMGs). The results showed that the mass per unit area of the PMGs can be reduced by 50% while maintaining better hydraulic performance than traditional bentonite-based GCLs. For aggressive leachate chemistries, in applications such as evaporation ponds and pregnant heap leach solutions, the products can be tailored to deliver low hydraulic conductivity while still providing a cost efficient alternative to compacted clay liners. In a separate experiment, the durability of the product against ion exchange in wet/dry cycling was also explored, as well as the impact of ion exchange on the swelling and sealing potential of the bentonite/polymer blends. Based on the identifying markers, a conclusive improvement in swelling and sealing was detected. The data demonstrates the RESISTEX® Universal GCL series' ability to provide low hydraulic conductivity against extreme leachates at higher effective stresses. These new

materials provide design engineers with a cost-effective option to ensure low leakage to the environment.

One of the International Geosynthetic Society (IGS)'s signature events with a growing international audience and reputation, this year's GeoAmericas represented the 4th Pan-American Regional Conference on Geosynthetics. Organized by [IGS Brasil](#), GeoAmericas 2020 was held from October 26-29, 2020 and included 1000+ participants from 30 countries.

To learn more about this year's event, visit <https://www.geoamericas2020online.com/>.

About CETCO

A subsidiary of Minerals Technologies Inc., CETCO is a construction technologies company based in Bethlehem, Pennsylvania. Offering solutions for commercial, industrial and infrastructure construction challenges worldwide, CETCO provides expertise in transforming minerals and polymers into technologies that improve productivity and performance. This includes leading the industry in environmental solutions for containment and remediation of pollutants, including groundwater treatment, solidification and stabilization, and sediment remediation.

About Minerals Technologies Inc.

New York-based Minerals Technologies Inc. (MTI) is a resource- and technology-based growth company that develops, produces and markets worldwide a broad range of specialty mineral, mineral-based and synthetic mineral products and related systems and services. MTI serves the paper, foundry, steel, construction, environmental, energy, polymer and consumer products industries. The company reported sales of \$1.8 billion in 2019. For more information visit www.mineralstech.com.

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