When It Comes to Organics Removal, Options Are Everything

Organic material in your water supply causes many problems. In the home, organics can cause objectionable color, odor and taste. For community water systems, organics may react with chlorination to cause unwanted disinfection byproducts. For industrial applications, organics can increase the operating cost and reduce the treated water quality. Dow Water Solutions offers a targeted removal solution to meet your challenge.

Combining our broad portfolio of DOWEX™ ion exchange resins with more than 60 years of application experience, we can help you select the right ion exchange system for your application.

Removal is Important, Release is Critical

In some applications, the removal of organics isn’t difficult – but the greater challenge is the release of the organics during the regeneration process. In these cases, organic material accumulates on the resin faster than it is released, causing organic fouling that gradually reduces the productivity of the ion exchange system.

Striking the right balance between organics removal and fouling resistance is key. DOWEX™ resins have been precisely engineered for both the removal and release, with the broadest portfolio of options for your needs.

About Dow Water Solutions

Dow Water Solutions is a performance-based business unit composed of leading world-class brands and enabling component technologies designed to advance the science of water purification around the world, including nanofiltration, reverse osmosis, and adsorption technologies. For more information, visit our website at www.dowwatersolutions.com.

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Benefits of DOWEX™ Ion Exchange Resins for Organics Removal

Producing resistance, DOWEX™ ion exchange resins are equipped to provide the optimum balance of organic removal and organic fouling resistance. The experts at Dow Water Solutions can help you find the right resin and the right technology for your specific application.

Durability. DOWEX™ ion exchange resins are tough, durable beads that remain stable when exposed to strong acids, bases and solvents. DOWEX® exchange resins have been engineered by polymer chemists at Dow to be one of the toughest beads on the market. In many applications, DOWEX® resins can be replaced and reused for hundreds of cycles.

Reliability. DOWEX™ ion exchange resins provide reliable and dependable water purification. For many more than 40 years of ion exchange manufacturing expertise, DOWEX® resins are sold with guaranteed specifications and certificates of analysis for every batch. DOWEX® resins are manufactured with statistical quality controls under a certified quality system that complies with ISO 9000 standards.

Industrial Applications

Options for Claro® Basic Tailing Drinking Water. In source geographical areas, drinking water supplies are dissolved due to tannins, which are generated by the decay of naturally occurring organic matter such as leaves and plants. DOWEX® TAN-1 strong base anion exchange resin is specially designed to remove tannins, helping to improve the clarity and taste of drinking water. In addition to its excellent tannin removal capabilities, DOWEX® TAN-1 resin has a very porous structure that allows for easy regeneration. In many home drinking water systems, Dowex® TAN-1 resins can be added directly into existing water supply to immediately begin producing clearer, better tasting water.

Options for Sampling Rod and Lined Well Systems. For drinking water applications that require the highest capacity, along with complete organic removal and maintaining drinking taste, a combination of weak base and strong base anion resins present the most effective solution. Leverage the power of DOWEX® exchange systems for complete organics removal and maximum fouling resistance. The use of an organic screen can provide further protection for industrial demineralizers. An additional bed of DOWEX™ MARATHON™ 11 resin can be installed upstream of the demineralizers to remove organic molecules before they reach the demineralizers. When operated with a solution of alkaline brine, the organic screen will extend the life of the demineralization resin.

Options for Solvent Removal. Naturally occurring organics are not the only contaminants that cause problems in industrial water applications. Solvents and other synthetic organics must also be removed to protect equipment and maximize your water supply. DOWEX® OPTIPORE™ L493 resin is a broad spectrum polymeric adsorbent that is especially designed for purge and trap variety of chlorinated and organic solvents from water supplies.

Options for Removal of Volatile Organic. Dowex® OPTIPORE® resin can be used purely as an adsorbent or as an extraction system: DOWEX® OPTIPORE® V493 and DOWEX® OPTIPORE® V503 polymeric adsorbent smoothly extracts chlorinated and organic solvents from streams, particularly in real bed systems. In many cases, DOWEX® OPTIPORE® adsorbents can be used in a cost-effective replacement of activated carbons.
Benefits of DOWEX™ Ion Exchange Resins for Organics Removal

Fouling resistance. DOWEX™ ion exchange resins are engineered to provide the optimal balance of organic removal and organic fouling resistance. The experts at Dow Water & Wastewater solutions can help you find the right solution for your unique application.

Productivity. DOWEX™ resins are manufactured with uniform particle size (UPS) – a technology invented by Dow researchers. UPS technology provides higher kinetics for higher flow rates, greater operating capacity, greater physical durability and sustained lifetime to help you achieve your lowest operating costs.

Durability. DOWEX™ ion exchange resins are tough, durable pellets that resist mechanical stress from swirling acids, bases and solvents. DOWEX ion exchange resins have been characterized by polymer chemists at Dow to be one of the toughest beds in the market. In many applications, DOWEX resins can be regenerated and reused for thousands of cycles.

Reliability. DOWEX™ ion exchange resins offer reliable and dependable performance, backed by more than 80 years of ion exchange manufacturing expertise. DOWEX resins are sold with guaranteed specifications and certifications of analysis for every batch – each resin is manufactured with statistical quality control under a certified quality system that complies with ISO 9003 standards.

Ion Exchange Resins

Benefits of DOWEX™

DOWEX™ ion exchange resins provide high-quality solutions for a broad range of applications, including algae removal, tannin removal and fouling resistance. The experts at Dow Water & Wastewater systems can help you find the right solution for your unique application.

Options for Simpler Treatment

Water treatment systems, such as demineralizers and softeners, are commonly fouled by naturally occurring organics that are present in drinking water. In many geographical areas, drinking water supplies may contain high levels of organics that may present the most effective fouling resistance, with high regeneration efficiency of weak base anion exchange resins and high regeneration efficiency of strong base anion exchange resins. Layered bed regeneration technology is available from certified licensees of the DOWEX™ UPCORE™ ion exchange system.

DOWEX MARATHON™ WBA Anion Exchange Resin

For demineralizer applications that require the highest capacity, along with complete organic removal and maintenance-free functioning, a combination of weak form base and strong form anion resins present the most effective solution. Layered beds with DOWEX™ MARATHON™ WBA and DOWEX™ MARATHON™ WBA resin is available from certified licensees of the DOWEX™ UPCORE™ ion exchange system.

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DOWEX OPTIPORE™ V493 Optipore Adsorbent

More Options to Protect Demineralizers

Options for Solvent Removal

Options for Removal of Volatile Organics

DOWEX™ resins are cost-effective alternatives in applications where higher temperatures and alkali brine, the organic screen will extend the life of the demineralizer regeneration process. In addition, Dow offers DOWEX ASG acrylic resin that allows even better release of large organic molecules during the regeneration process. In addition, Dow offers DOWEX AG acrylic resin as a cost-effective alternative in applications where higher temperatures and alkali brine are not a concern.

DOWEX™ MARATHON™ MSA Acrylic Gel Strong Base Anion Exchange Resin

DOWEX™ MARATHON™ MSA resin is specially designed to remove natural organic material before it reacts with disinfectants. DOWEX™ MARATHON™ MSA resin is specially designed to remove natural organic material before it reacts with disinfectants. DOWEX™ MARATHON™ MSA resin is specially designed to remove natural organic material before it reacts with disinfectants.

DOWEX™ MARATHON™ 11 Acrylic Gel Weak Base Anion Exchange Resin

DOWEX™ MARATHON™ 11 resin is specifically designed to remove these natural organic materials, with exceptional release properties during regeneration.

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More Options to Protect Demineralizers

Options for Solvent Removal

Options for Removal of Volatile Organics

DOWEX™ resins are easily treated as an anion exchange resins. DOWEX OPTIPORE™ WBA and DOWEX OPTIPORE™ WBA polymeric adsorbent matrix effectively removes chlorinated and organic solvents from air streams, particularly in real-bed systems. In most cases, DOWEX OPTIPORE™ adsorbents can be used in a cost-effective alternative to activated carbon.

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