

XOP

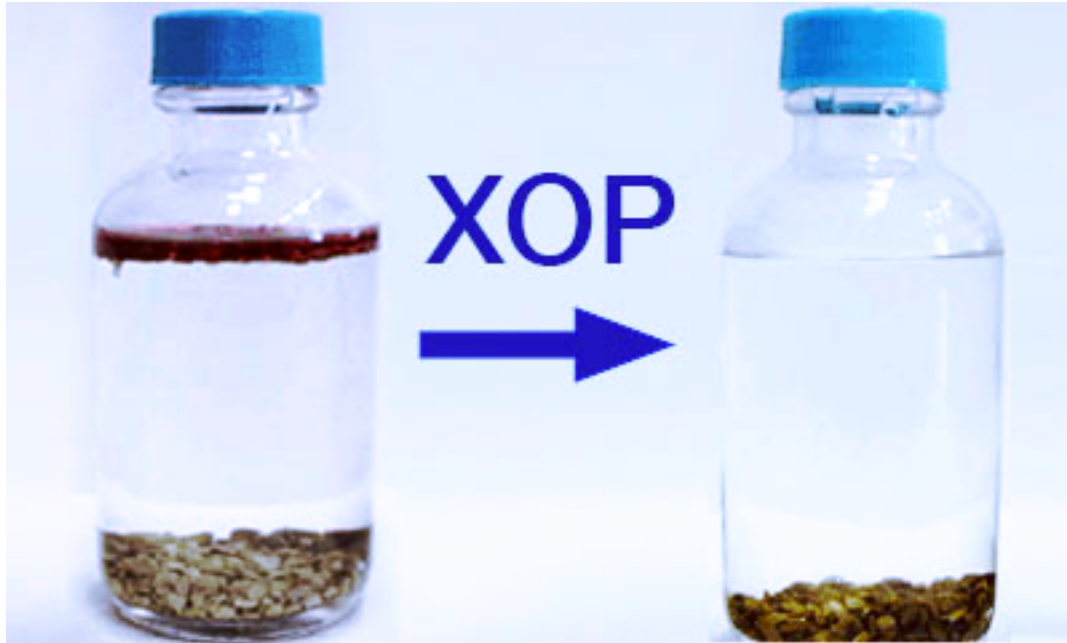
ACTIVATED CARBON REPLACEMENT

The main difference between XOP and other organoclays is that our media is 100% non-swelling modified clay and does not require blending with anthracite for porosity in a filter bed. This means that filter beds typically run 2-3x longer than filters using competitive (30/70 and 40/60 – clay/anthracite blends). In addition, because XOP has a greater amount of “actives,” it may also remove contaminants present at lower levels better than competitive medias.

XOP is a powerful, selective adsorbent that will recognize hydrocarbons and other pollutants – but not water. Designed for use in conventional liquid-phase filtration vessels, the granular modified clay attracts contaminants like a magnet and locks them in its molecular structure. XOP Modified Clay Media is produced in a proprietary process by combining sodium montmorillonite clay with a cationic quaternary amine salt, which replaces adsorbed sodium by ion exchange. Resulting clay surfaces become organophilic.

Extensive application use and field testing of XOP Modified Clay Media technology, verified by independent laboratories, has demonstrated removal of a wide range of contaminants to discharge levels which meet NPDES and other regulatory requirements.

BEFORE & AFTER



Xedia
Process Solutions

PROPERTIES

| Appearance | Specific Gravity | Bulk Density | Granule Size | Contact Time | Void Volume |
|----------------------|------------------|----------------------|----------------------|-------------------------------------|-------------|
| Gray to Tan granules | 2.0 – 2.2 | 42 – 46 lbs/ft cubed | 8/30 Mesh (US sieve) | 2 – 4 minutes (EBCT 3.3 – 6.6 min.) | 35% – 45% |

BENEFITS

A Cost Saving Filtration Media

When used alone, XOP removes oil at 700% the rate of activated carbon and will reduce your operating costs by 50% or more. When used as a pre-treatment for activated carbon in applications involving oil and grease removal, XOP removes the oil and grease effectively, allowing the activated carbon to remove the soluble organic compounds more efficiently.

Increases the Efficiency of the Treatment Process

The quarternary amine-treated clay pellets have the ability to capture 50 – 60% of their weight in oil, grease and other low solubility organic compounds. Used upstream from activated carbon or downstream of other oil removal processes, XOP optimizes the overall system performance and reduces costs.

Stand Alone

XOP outperforms anthracite, GAC, and all other filter media technologies in stand-alone applications for the removal of higher molecular weight hydrocarbons.

Post Treatment

XOP may be applied downstream of oil/water separators, DAF systems, clarifiers, sand filters, and other physical/chemical separation systems.

Application

XOP is designed for column operation. The media should be placed in appropriately sized fluid contactor vessels in the same manner as granular activated carbon (GAC). XOP needs to be wetted and deaerated with clean water for a minimum of 1 hour prior to the introduction of contaminants in order to prevent fluid channeling within the media bed.

Pre-Treatment

XOP may be used to pre-treat the influent of GAC filters, reverse osmosis units, ultra filtration units, and other related systems where less soluble, higher molecular weight hydrocarbons tend to cause plugging, fouling, and equipment contamination.

Dosage

The amount of XOP required will vary depending on contaminant concentration and type, contact time, and fluid temperature. Generally, contaminants with lower concentrations and solubilities, longer contact times, and moderate fluid temperatures are preferred.

Storage and Handling

Store in a dry place. Avoid extreme temperatures. Avoid breathing dust.