



HYDREX™



Biosourced flocculating agents
for drinking water clarification

WATER TECHNOLOGIES



HYDREX™ biosourced flocculating agents: sustainable effectiveness

Producing drinking water generally includes a step of raw water clarification, aiming at separating the particles and colloids from the liquid phase.

In order to guarantee effectiveness, this phase typically requires the use of a flocculant.

Traditionally, polyacrylamides, synthetic organic flocculants from the chemical industry of oil derivatives, are used.

Several countries in Europe and Asia have recently restricted the use of these synthetic polymers during this key step of water potabilization.



Alternative Veolia solutions to polyacrylamides

Veolia Water Technologies, with its Hydrex offer dedicated toward producing additives for industrial and municipal water treatment, is exclusively offering a complete, innovative range of biosourced products.



A genuine and credible alternative to synthetic polymers, Hydrex biosourced flocculants, made of potato starch based from natural cultures, are the result of ambitious research and development efforts, and an exclusive partnership with an industrial leader in starch-based products.

Once activated, Hydrex biosourced flocculants outperform all other natural flocculants on the market in terms of effectiveness, technical performance and economical efficiency.

Two main products are available:

- **Hydrex 3841**
- **Hydrex 3842**

As a supplement, the new range of Hydragreen in-line preparation units, which optimize the automatic implementation of these flocculants, are offered by Veolia.



Main advantages

For your potabilization system

- > **Wide range of use and compatibility** with all clarification systems, and in particular with the following Veolia solutions: Actiflo® and Multiflo™ high-speed settlers, Spidflow™ and Spidflow™ Filter fast flotation solutions...
- > **Superior effectiveness** to all other biosourced flocculants on the market
- > **Technical performance and economical efficiency** compared to polyacrylamides
- > **Excellent resistance with cold water** to be clarified, with significant effectiveness down to 2°C
- > **Compatibility** in the flocculation phase **with Powdered Activated Carbon of polishing processes** (Actiflo® Carb and Multiflo™ Carb)
- > **No biofouling impact** on a downstream membrane separation (micro-filtration or ultrafiltration)

- > Residual Biodegradable Dissolved Organic Carbon (BDOC) **is negligible** in the treated water
- > **Complies with regulators' standards** in terms of treatment performance and water quality
- > **No THM/HAA* impact on the treated water**

Benefits for the environment

- **Non-toxic and biodegradable nature** of the flocculant once it is used
- **A resource** in potato starch **that is naturally affordable, abundant and sustainable** (no GMOs - Genetically Modified Organisms)

*THM: Trihalomethane. HAA: Haloacetic Acid

AMONG OUR REFERENCES

- > Nantes - La Roche (France-44), 2016 – 8,000 m³/h
- > Cholet - Ribou (France-49), 2014 – 1,200 m³/h
- > Sablé sur Sarthe (France-72), 2014 – 1,200 m³/h
- > Romorantin (France-41), 2014 – 11,000 m³/d
- > Vitré - La Grange (France-35), 2014 – 500 m³/h
- > La Chesnaie (France-49), 2013 – 250 m³/h
- > Valmayor, Province of Madrid (Spain), 2013 – 21,600 m³/h
- > Racon, Province of Alicante (Spain), 2012 – 550 m³/h
- > Vitré - La Billerie (France-35), 2012 – 750 m³/h
- > Annet sur Marne (France-77), 2012 – 150 m³/h

Resourcing the world

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