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FILTER-AG®

Filter-Ag is a silica, crystalline quartz media which can be used as highly efficient filter media for the reduction of suspended matter.

ADVANTAGES

- There is less pressure loss through a bed of Filter-Ag® than through most other filter medias.
- Light weight requires lower backwash rates than those required for other filter medias.
- High service rates result in lower equipment costs and a savings in space.
- High sediment reduction capacity results in longer filter runs, with a substantial savings in backwash water and time out of service.
- Reduced shipping cost due to light weight/cu. ft.
- Replacement of sand with Filter-Ag in existing installations may increase filter capacity 100% or more.
- Certified to NSF/ANSI/CAN Standard 61.

Clack Filter-Ag® has many outstanding advantages over the more common granular filter media used for suspended solids reduction. Its fractured edges and irregular surface provide a high surface area and complex flow path for efficient removal of suspended matter throughout the filter bed, typically reducing suspended solids down to the 20–40 micron range. Filter-Ag's larger particle size creates less pressure loss through the filter and allows deeper sediment penetration into the bed for higher sediment loading and longer filter runs. The large and irregular shape prevents the screening and caking of sediment in the top several inches of the filter bed as happens in the typical sand filter, thus preventing a rapid buildup of headloss and blinding problems. Filter-Ag's light weight means lower backwash rates and better bed expansion to release trapped sediment and rinse the filter media during the backwash cycle. The combination of particle shape, size and density make it a good choice where quality water filtration and water conservation are important.

Although not intended to be an iron reduction media, extensive field experience has shown Filter-Ag's rough and jagged surface to be very good at entrapping the fragile iron flock that forms after dissolved iron has been oxidized. Typical oxidation methods include aeration, ozonation and chlorination. Substantial savings can be realized when designing a system using Clack Filter-Ag. Its low pressure drop, high service flow rates and high bed loadings combined with lower backwash rates allow economy in equipment downsizing and reduced pumping requirements. Its light weight also saves on handling expense and shipping costs.

Clack Filter-Ag can be applied to systems designed for either pressure or gravity flow. Because of its unique density, Filter-Ag can also be used in multi-media (graded density) filter designs allowing a more flexible approach to difficult filtration problems.

Caution!!! Should be taken upon start-up that the lightweight Filter-Ag is not washed to drain.

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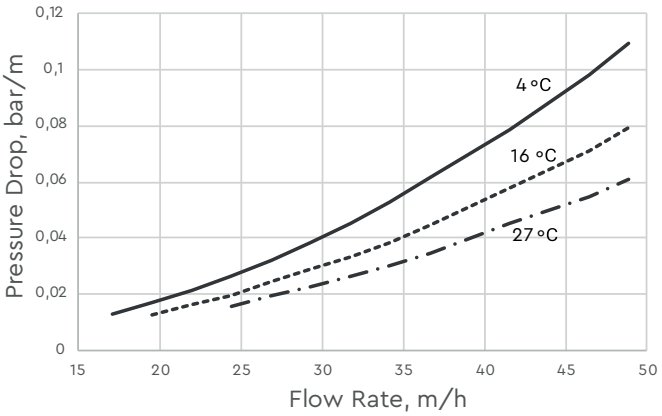
PHYSICAL PROPERTIES

Color	Light grey to near white
Bulk Density, g/cc	0.38–0.42
Size, mm **mesh**	0.5–2.0 10 × 34
Specific Gravity, g/cc	2.25
Effective Size, mm	0.67
Uniformity Coefficient	2.1
Hardness, Mohs scale	6

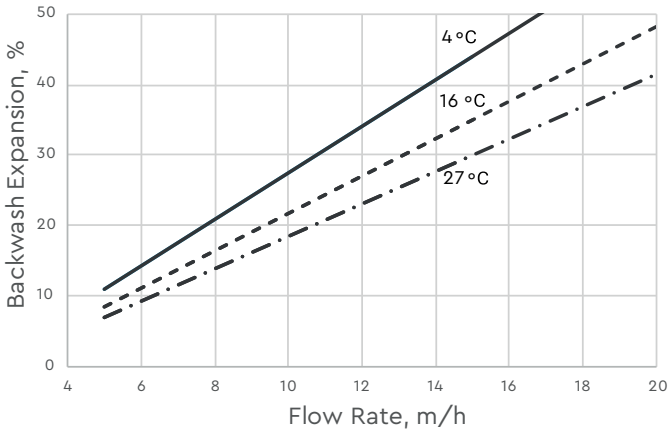
CONDITIONS FOR OPERATION

Temperature, °C (max.)	60
Water pH range	Wide
Bed depth, m	0.6–0.91
Service flow rate, m/h (higher rates are often used)	12
Freeboard, % of bed depth (min.)	50
Backwash bed expansion,%	20–40
Backwash flow rate, m/h	20–25
Upon installation allow bed to soak overnight before backwashing	

Service Flow Pressure Drop



Backwash Bed Expansion



Code	Description	Bag Volume, l	Bag Weight, kg
A8014	Filter-Ag® filter media	28.3	≈11