FILTRAL METAL – REMOVAL MEDIA

Application:

newterra Filtral is a screened, granular media ideal for many groundwater treatment applications including the removal of arsenic, lead, fluoride, chromium, zinc, iron, phosphates etc. Filtral is well suited for the removal of metals and other more water-soluble inorganic compounds because of its unique pore structure and ability to cause chemical reactions on its surface to eliminate contaminants from the waste water. Its high surface area and high porosity make it attractive for use in waste water; while its size makes it appealing where low pressure drop is needed. Discharge effluent levels for compounds on the removal list typically are well below 1 ppm. (NOTE: Variations will occur based on excessive influent concentrations.)

Cation / Anion Adsorption List:

Cations:

Thorium (+2)
Aluminum (+3)
Uranium (+4)
Zirconium (+2)
Cerium (+4)
Iron (+3)
Cerium (+3)
Titanium (+3)
Mercury (+2)
Uranium Oxide (+2)
Lead (+2)
Copper (+2)
Silver
Zinc (+2)
Cobalt (+2)
Iron (+2)
Nickel (+2)
Thallium (+1)
Manganese (+2)

Anions:

OH (-1)
AsO_4 ($^{-3}$)
PO_4 ($^{-3}$)
C_2O_4 ($^{-2}$)
F (-1)
SO_3 (-2)
$Fe(CN)_6$ (-4)
CrO_4 ($^{-2}$)
S_2O_3 (-2)
SO_4 (-1)
$Fe(CN)_6$ (-3)
Cr_2O_7 ($^{-2}$)
NO_2
CNS (-1)
I (-1)
Br (-1)
Cl (-1)
NO_3 (-1)
MnO_4 (-1)
ClO_4 (-1)
CH_3COO (-1)
S_2 (-1)

Examples of Performance:

Parameter	Units	EQL	Outlet of OWS (Influent)	After Filtral Vessel
Dissolved trace metals				
Barium	mg/L	0.003	0.232	0.0865
Cadmium	mg/L	0.001	<0.002	<0.002
Cobalt	mg/L	0.003	0.011	0.003
Chromium	mg/L	0.0007	0.002	0.0007
Copper	mg/L	0.0005	0.0012	<0.0005
Nickel	mg/L	0.002	0.008	0.002
Lead	mg/L	0.006	<0.006	<0.006
Titanium	mg/L	0.006	<0.008	<0.008
Zinc	mg/L	0.006	0.218	<0.006
Dissolved major metals				
Iron	mg/L	0.002	0.748	0.157
Manganese	mg/L	0.0008	2.73	1.91

Packaging options: Water Pollution Control Barrels, Large

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