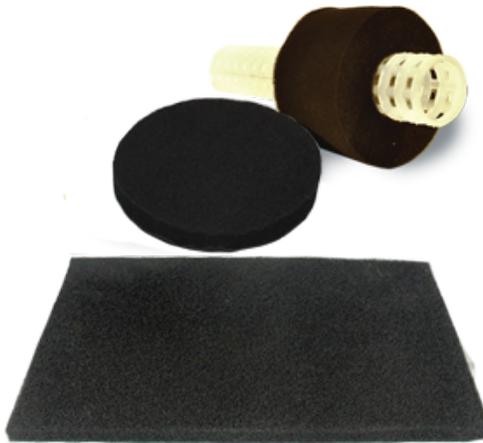




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Bone Char Reticulated Media



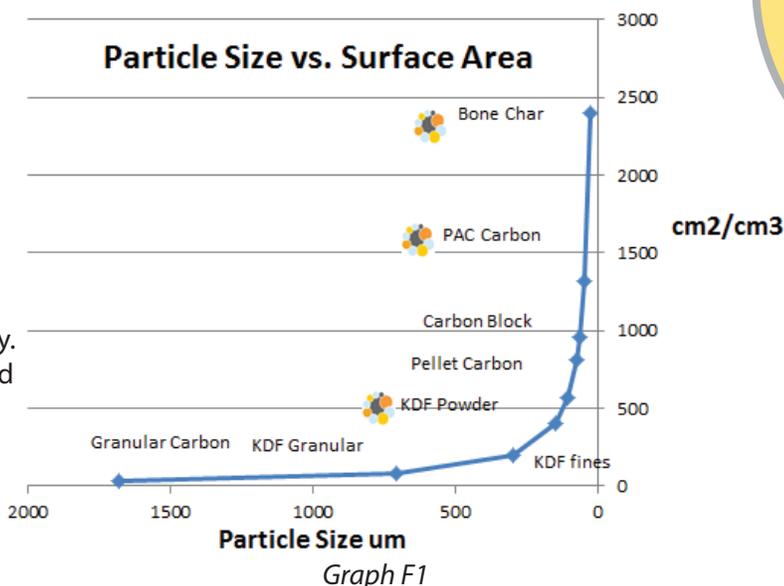
Featured Contaminant Selectivity

-  **Fluoride**
-  **Mercury**
-  **Heavy Metals**
-  **Copper**
-  **Cadmium**
-  **Zinc**

Bone Char has shown ability to remove a wide variety of contaminants aside from the featured items. Tests are available upon request showing a full range of contaminants that have been filtered with Bone Char Reticulated medias. Bone Char is most commonly used in the defluoridation of water and removal of heavy metals from aqueous solutions. Bone char usually has lower surface area than activated carbon, but presents higher adsorptive capacities for copper, zinc, and cadmium."

Foamulations' Increased Efficiency

Foamulations' reticulated medias outperform the same medias in granular form because of chemical kinetics and the Collision Theory. This is accomplished by the size of the particle and the reticulated structure which causes a torturous path for the influent gas or liquid solution. The law of mass action states that the speed of a chemical reaction is proportional to the quantity of the reacting substances. In the case of Foamulations' medias it is the quantity of readily available surface area. Graph F1 shows as the particles decrease in size the surface area increases exponentially. In relation to Collision Theory the more collisions created the higher percentage of chemical reactions. The reticulated structure assures the influent stream will see many collisions with the most efficient particle possible.



Loading Percentages and Capacity

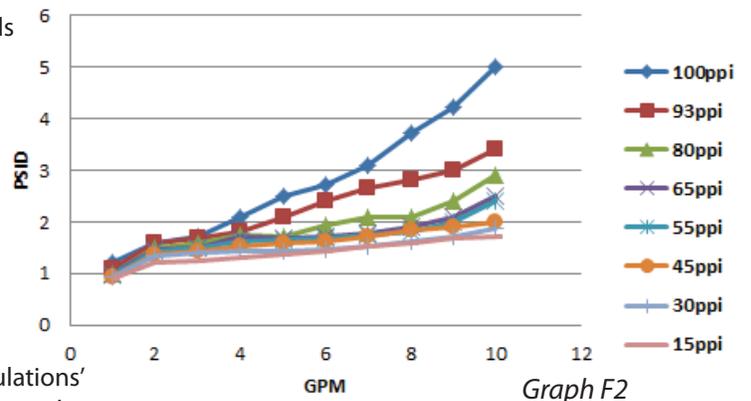
PPI	Media Loading	Percentage of Media	Expected Capacity
15PPI	.24 Grams/Cubic Inch	36%	35 Gallons/Cubic Inch
60PPI	.75 Grams/Cubic Inch	64%	110 Gallons/Cubic Inch
80PPI	1.4 Grams/Cubic Inch	71%	206 Gallons/Cubic Inch
100PPI	1.9 Grams/Cubic Inch	75%	280 Gallons/Cubic Inch

Foamulations Pressure Differential

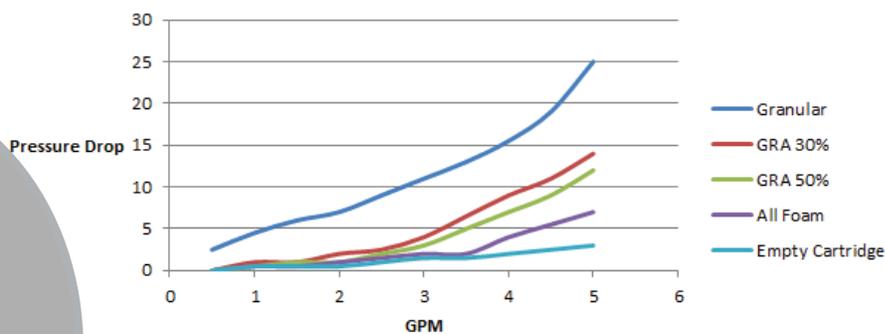
One of the main benefits of Foamulations' reticulated medias is the lack of PSID (pressure differential) over standard filtration cartridges. Most 4.5" diameter filtration cartridges max out at approximately 4-5gpm.

Foamulations' cartridges have been pushed upwards of 10gpm and still show lower PSID than all other filtration cartridges. Foamulations' cartridges also filter axially so the influent sees a much larger bed depth than that of comparable radially flown cartridges. The reticulated structure can also act as a separation or dispersion layer which will help to decrease the overall PSID even when used in conjunction with granular medias. Graph F2 shows the PSID in a standard 4.5" x 20" cartridge for the various PPI (pore per inch) or density of reticulated medias available. Graph F3 shows how using Foamulations' reticulated media as a dispersion or separation layer can improve the overall PSID. The percentages show the amount of reticulated media used in relation to the overall volume of the cartridge.

**PSID vs. GPM
4.5" x 20" Cartridge**



10" Slim Line Cartridge



Graph F3

Foamulations can shape, size and cut medias to fit directly in your current housing or we can aid in the development of a housing which will help our media function in the most efficient manner. Foamulations' reticulated media can be used in gravity situations, high and low pressure situations. Contact a Fomulations engineer today to help with your next filtration project.

Raw Media is NSF/WQA Certified

