

Formulas or Mixes (M) and associated specific (B) Bar values:

B0.5 - 1/2 Bar (7.25 psi or 50KPa) Air Entry Ceramics

CERAMIC-B0.5M2

This ceramic is developed from a high fired, Alumina body. The resulting ceramic is an excellent material which is extremely porous, inert to most all solutions, possesses hard exterior and interior surfaces, and is pure white in color. This material is recommended for low pressure differentials not exceeding 7.4 psi. The tremendous porosity and high conductivity of fluids or gases make it ideal for quick extractions or in creating, monitoring or extracting pulse hydrological events. The material is ideal for liquid or gas sampling as the Alumina material has almost no ionic exchange sites or "leachable" mineralogy. This is a truly superior ceramic for both industrial and scientific work where high volume transfer or testing at low pressure differentials is necessary .

B01 - 1 Bar (14.5 psi or 100KPa) Air Entry Ceramics

CERAMIC-B01M1

This ceramic is developed from a moderately fired largely Talc body. The resulting ceramic material, made from a time proven formula, is a utilitarian ceramic having good porosity, tough exterior and interior surfaces, and is ivory white in color. This material is recommended for general purpose uses that involve pressure differentials under 15 psi. This ceramic is an excellent choice where cost and precise content of fluids or extracts are not at issue. This material has been applied successfully to tensiometers, pressure plate assemblies, suction tables and the like for nearly 50 years. This ceramic is not recommended for precision fluid sampling work as it has some ionic exchange sites and a mineralogy that is leachable with strong acids over the years. This is the perfect choice for those needing a low cost industrial ceramic product or where the science requires minimal fluid content determinations.

CERAMIC-B01M3

This ceramic, like the B0.5M2, is developed from a high fired Alumina body. The resulting ceramic is an excellent material. It is extremely porous, inert to most all solutions, possesses hard exterior and interior surfaces, and is pure white in color. This material is recommended for standard pressure differentials not exceeding 15 psi. The tremendous porosity and ability to conduct large amounts of fluids or gases makes it ideal for quick extractions, and creating, monitoring or extracting pulse hydrological events. The material is ideal for liquid or gas sampling as the Alumina material has almost no ionic exchange sites or "leachable" mineralogy. A great material for most any application involving sampling, testing, monitoring or infusion where precision and actual liquid contents are of importance.

B02 - 2 Bar (29.4 psi or 200KPa) Air Entry Ceramics

CERAMIC - B02M1

This ceramic is developed from a variety of ball clays into a moderately fired ceramic body. The fired product has an effective porosity and good hydrologic flow capability. Bubbling pressures for this ceramic are pressure differentials less than 29.4 psi. This general use ceramic is most often used on specialized plates for soil water retention or in unique oil and gas industries for reclamation studies. The material is moderately hard and creamy white in color. This ceramic is recommended for specialized applications using plates.





B02 - 2 Bar (29 psi or 200KPa) Air Entry Ceramics

CERAMIC - B02M2

This porcelain ceramic is developed from a high fire Silica body. The resulting ceramic is an excellent material for slightly elevated pressure differentials not exceeding 29.4 psi. The material has a somewhat grainy texture and pure white appearance. A good material for sampling fluids and gases as porcelain has few ionic exchange sites or “leachable” mineralogy. With the good porosity and hydrologic characteristics, this ceramic provides a material that can be used by oil companies or agricultural research scientists. This ceramic is an excellent choice for those needing the added capacity of elevated pressure differentials and precise fluid content measurements.

B03 - 3 Bar (43.5 psi or 300Kpa) Air Entry Ceramics

CERAMIC B03M1

This ceramic is developed from a complex mixture of ball clays into a moderately fired ceramic body. The resulting ceramic has good porosity and good hydrologic flow capability. Bubbling pressures for this ceramic are pressure differentials exceeding 44 psi. This ceramic is generally used within pressure vessel equipment for the determination of soil water retention or in oil and gas industries for reclamation studies. The material is moderately hard and tannish-white in color. This ceramic is recommended for specialized applications where the differential pressures will be less than 44 psi.

B05 - 5 Bar (72.5 psi or 500Kpa) Air Entry Ceramics

CERAMIC - B05M1

This ceramic, like the “B03M1”, is developed from a complex mixture of ball clays into a fired ceramic body. The resulting ceramic has good porosity and good hydrologic flow capability. Bubbling pressure or air entry values are pressure differentials exceeding 74 psi or greater. It is generally used within pressure vessel equipment for the determination of soil water retention or in oil and gas industries for reclamation studies. The material is very hard and brownish-white in color. This ceramic is recommended for specialized applications where the differential pressures will be less than 74 psi.

B15 - 15 Bar (217.5 psi or 1500KPa) Air Entry Ceramics

CERAMIC - B15M1

This ceramic is developed from a proprietary mixture of ball clays fired to a ceramic body. The resulting ceramic material is pinkish-tan in color, moderately hard and will withstand pressure differentials of 220 psi. This unique ceramic, incorporated into 0675 pressure plate cells, has been used in Agronomy for many years in water retention studies to a theoretical wilting point of 15 bars. It has also found use in the oil and gas industries in studies of reclamation and production techniques. It remains the worldwide choice of experts when they need to know the behavior of liquids to a 3 dimensional porous material that mimics soil and stone. The B15M1 is still the only ceramic in the world that, when wetted, can withstand a pressure differential of 220 psi and not leak or bubble. The unique characteristics of the B15M1 ceramic make it the selection of experts and scientists who are involved in liquid movements and transfer conditions at elevated pressure differentials.

NOTE: Formulas and Mixes

The above formula descriptions for our ceramics are keyed to the “bubbling” (B) or air entry value of a ceramic. There may be one or more “mixes” (M) associated with a particular air entry value. M1 will denote the first formula, M2 the second, and so forth. An example of this non-relationship: M1 mix for a B1 (one bar air entry value) is not in any manner related to the mix or formula M1 for a B5 (five bar entry value ceramic).