



Porous Ceramic Media

Specification

Physical Analysis

Item	Data	Method
Water absorption	23%	JIS A5209
Coefficient of Penetration (with water)	0.25 cm/sec	JIS A1218
Anti-Abrasion	1.2 gm	JIS A5209
Bending Strength	80 kgf/cm ² (1,137 lb/in ²)	JIS R1503
Compressing Strength	162 kgf/cm ² (2,304 lb/in ²)	JIS R2206
Anti-Acid & Anti-Alkali	None	CNS R2167
Surface Area	35,000 m ² /m ³ (Ball shape)	BET
Surface Area	23,000 m ² /m ³ (Plate shape)	BET
Free Volume	37~39%	
Ion Exchange Ability	12~13 Cmol/kg	NIEA S201.60T
Density	1.12	
Block Density	0.75	

Chemical Analysis

Item	Data	Method
Aluminum Oxide (Al ₂ O ₃)	38.2	ICP
Silicon Dioxide (SiO ₂)	43.6	ICP
Calcium Oxide (CaO)	6.7	ICP
Manganese Oxide (MgO)	4.3	ICP
Potassium Oxide (K ₂ O)	2.8	ICP
Sodium Oxide (Na ₂ O)	1.8	ICP
Titanium Dioxide (TiO ₂)	0.9	ICP
Iron Oxide (Fe ₂ O ₃)	1.7	ICP

TAIMAX Porous Ceramic Media V.S other material in The Application of Bio-Filtration

Material	Block Density kg/m ³	Surface Area m ² /m ³	Porosity %
Porous Ceramic Media	850	2,430	60
Normal Ceramic Ring	850	500	65
Mineral Stone Φ 6m/m	1,800	110	45
Foam Plastic	39	88	85
Normal Plastic	70	85	80