



TECHNICAL INFORMATION



THERM-EX GROUT™

Description: THERM-EX GROUT™ is a specially engineered system for use as a backfill material in earth coupled heat pump systems.

Typical Characteristics:	Bulk Density (lbs./ft³):	58 ± 4
	Cation Exchange Capacity (CEC meq(100gm):	70 – 90
	Color:	Light Grey to Tan
	Moisture Content (%):	5 – 9
	Permeability (cm/sec):	1 X 10 ⁻⁸
	pH:	8.9 ± 0.9
	Sieve Analysis (% Passing #200 Sieve):	>79
	Specific Gravity:	2.55 ± 0.1
	Surface Area (m²/gm):	External Surface – 82 All Surfaces - 800
	Thermal Conductivity (Btu/hr-ft-°F):	0.93 – 1.2
	Wet Screen Analysis (Residue on #200 Sieve):	3.0 ± 0.5

Typical Chemical Analysis:	%
SiO ₂	60.34
Al ₂ O ₃	19.28
Fe ₂ O ₃	3.48
Na ₂ O	2.34
TiO ₂	.22
CaO	.38
MgO	1.67
K ₂ O	.10
H ₂ O	7.75
Other	.07
L.O.I.	4.37

E.P.A Toxicity Analysis:	E.P.A Standard (ppm)	Typical Analysis (ppm)
Arsenic	5.0	<0.1
Barium	100.0	0.5
Cadmium	1.0	<0.05
Chromium	5.0	<0.1
Lead	5.0	<0.1
Mercury	0.2	<0.02
Selenium	1.0	<0.05
Silver	5.0	<0.1

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