ConduCrete Pro Technical Specifications | CC55-Pro

Physical Properties

Property	Typical Value		Unit	Test Method
Dry Density (Powder)	1400 1.4 87.4		kg/m^3 g/cm^3 lb/ft^3	SAE Inc. Standard 106 (dependent on compaction)
Wet Density (Hardened State)	1730 1.73 108		kg/m^3 g/cm^3 lb/ft^3	SAE Inc. Standard 106
Slurry Density	kg/m^3	g/cm^3	lb/ft^3	
Actual slurry density values will vary depending on water content. Contact SAE Engineering for more information.	1529	1.529	95.4	SAE Inc. Standard 106
Dry Volume (Powder)	m^3		ft^3	
55 lb bag 2200 lb supersack 1 lb bag	0.023 0.764 3.5×10^{-4}		0.802 27.027 0.012	SAE Inc. Standard 106
Slurry Volume	m^3		ft^3	
Actual slurry volume values will vary depending on water content. Contact SAE Engineering for more information.	0.025		0.886	SAE Inc. Standard 106
Hygroscopic Property (Water Absorption)	25.4		%	SAE Inc. Standard 110
Water Permeability	2.0×10^{-8}		cm/sec	ASTM D5084 (2.6 psi) Mix ratio of 3 US gallons per 55 lb bag
Electrical Corrosion Resistance Copper Steel Galvanized Steel	 95-100 95-100 95-100		%	SAE Inc. Standard 100

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Property	Typical Value	Unit	Test Method
Compatibility Copper Steel Galvanized Steel	 Yes Yes Yes		SAE Inc. Standard 100
Environmental Impact	Neutral		Ontario Regulation 558/00 (Leachate Testing) and NSF / ANSI / CAN 60
Carbon Consumption Rate	0.5	kg/ amp•year	SAE Inc. Standard 117
Physical State (Uncured)	Grey Powder		
Physical State (Cured)	Grey Solid		
Odor	None		
Working Time	Approx 30-60	minutes	
Setting Time	24	hours	
Cure Time	28	days	

Compressive Strength Properties

Property	Cure Time			Test Method
Compressive Strength (psi)	1 day	8 days	28 days	
Actual compressive strength values will vary depending on water content. Contact SAE Engineering for more information.	3713	5526	5961	CAN / CSA.A23.2-19
Compressive Strength (MPa)	1 day	8 days	28 days	
Actual compressive strength values will vary depending on water content. Contact SAE Engineering for more information.	25.6	38.1	41.1	CAN / CSA.A23.2-19

Electrical Properties

Property	Typical Value	Unit	Test Method
Resistivity	2.3	Ω•cm	Modified ASTM G187-05
Conductivity	0.44	S/cm	Modified ASTM G187-05

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IEC 62561, Part 7

ConduCrete meets IEC 62561, Part 7: Lightning Protection System Components, Requirements for Earthing Enhancing Compounds.

NSF / ANSI / CAN 60

ConduCrete meets NSF / ANSI / CAN 60: Drinking Water Treatment Chemicals - Health Effects.
https://info.nsf.org/Certified/PwsChemicals/Listings.asp?Company=C0169859&Standard=060

Leachate (TCLP) and NSF / ANSI / CAN 60 Results

Leachate Data (TCLP Procedure) based on Ontario Regulation 558/00. ConduCrete was tested to NSF / ANSI / CAN 60, section 8 for backfill apllications.

Constituent	ConduCrete TCLP Concentration (mg/L)	USEPA Maximum Contaminant Level (mg/L)	ConduCrete NSF 60 Concentration (mg/L)	NSF 60 Acceptance Criteria (mg/L)
Arsenic	BDL	0.010	BDL	0.001
Barium	0.384	2.000	0.000089	0.200
Boron	0.158	2.000*		
Cadmium	BDL	0.005	BDL	0.0005
Lead	BDL	0.015	BDL	0.0005
Mercury	BDL	0.002	BDL	0.0002
Selenium	BDL	0.50	BDL	0.005
Silver	BDL	0.100**	BDL	
Uranium	BDL	0.030	BDL	
Fluoride	BDL	2.000**		
Nitrate (as Nitrogen)	BDL	10.000		
Nitrite (as Nitrogen)	BDL	1.000		
Free Cyanide	BDL	0.200		

BDL means the result is “Below the Detection Level” of the analytical procedure
* No MCL established; value shown is USEPA’s Lifetime Drinking Water Health Advisory
** No MCL established; value shown is USEPA’s Secondary Drinking Water Standard

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Soil Analysis Results

Determination of Anions in Soil Procedure was based on SW846-9056A and Determination of Free Cyanide in Soil was based on EPA OIA-1677.

Constituent	ConduCrete Pro Concentration (µg/g)
Fluoride	BDL
Nitrate (as Nitrogen)	BDL
Nitrite (as Nitrogen)	BDL
Free Cyanide	BDL

BDL means the result is “Below the Detection Level” of the analytical procedure

The properties in this technical data sheet are typical values, not guaranteed specification, and are subject to change.

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Report Data Reviewed and APPROVED by

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