# ConduDisc® Technical Specifications

## Physical Properties:

| Property | Typical Value | Unit | Test Method |
|---|---|---|---|
| **Physical State** | Black Solid | | |
| **Odor** | None | | |
| **Water Permeability** | $1.72 \times 10^{-7}$ | cm/sec | ASTM 5084 (2.6 psi) |
| **Flammability** | No ignition | | Exposed to a propane torch (~2000 °C) for 60 seconds |
| **Electrical Corrosion Resistance**<br>**Copper**<br>**Steel**<br>**Galvanized Steel** | <br>100<br>98.09<br>99.91 | % | SAE Inc. Standard 100 |
| **Compatibility**<br>**Copper**<br>**Steel**<br>**Galvanized Steel** | <br>Yes<br>Yes<br>Yes | | SAE Inc. Standard 100 |
| **Environmental Impact** | Neutral | | Ontario Regulation 558/00 (Leachate Testing) |
| **Freeze-Thaw Withstand** | 30 | years | SAE Inc. Standard 102 |

## Mechanical Properties:

| Property | Typical Value | Unit | Test Method |
|---|---|---|---|
| **Elastic Compression** | | | |
| **7000 kg** | 2.2 (4.3) | mm (%) | |
| **12 000 kg** | 2.6 (5.1) | mm (%) | SAE Inc. Standard 103 |
| **14 500 kg** | 3.0 (5.9) | mm (%) | |
| **16 771 kg** | 3.1 (6.1) | mm (%) | |
| **Maximum Load Applied** | 16 771 | kg | SAE Inc. Standard 103 |

## Electrical Properties:

| Property | Typical Value | Unit | Test Method |
|---|---|---|---|
| **Resistance** | 0.031 | Ω | SAE Inc. Standard 105 |
| **Resistivity** | 30.39 | Ω·cm | SAE Inc. Standard 105 |

## Fault Current Withstand:

| RMS Current (A) | RMS Voltage (kV) | Resistance Before Test (mΩ) | Resistance After Test (mΩ) | Approximate Temperature Rise (°C) | Test Duration (milliseconds) |
|---|---|---|---|---|---|
| **1040** | 19.5 | 30.6 | 20.3 | 1 | 508 |
| **2520** | 124.0 | 55.5 | 20.2 | 2 | 508 |
| **3730** | 239.0 | 44.9 | 46.0 | 13 | 234 |
| **4990** | 176.0 | 34.6 | 7.28 | 1 | 508 |

## Leachate (TCLP) Results:

Leachate Data (TCLP Procedure) based on Regulation 558 performed by Testmark Laboratories Ltd.

| Constituent | ConduDisc™ TCLP Concentration (mg/L) | USEPA Maximum Contaminant Level (mg/L) |
|---|---|---|
| **Arsenic** | < 0.010 | 0.010 |
| **Barium** | 1.490 | 2.000 |
| **Boron** | 1.067 | 2.000ǂ |
| **Chromium** | 0.026 | 0.100 |
| **Mercury** | < 0.001 | 0.002 |
| **Selenium** | 0.013 | 0.050 |
| **Silver** | < 0.01 | 0.100* |
| **Uranium** | < 0.01 | 0.030 |
| **Fluoride** | 0.190 | 2.000* |
| **Nitrate (as Nitrogen)** | < 0.01 | 10.000 |
| **Nitrite (as Nitrogen)** | < 0.05 | 1.000 |
| **Cyanide** | < 0.05 | 0.200 |

ǂ 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.
Note: < denotes less than method detection limit (MDL).

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