# Electric Super™ DiPED™

## Diode Protected Seismic Electric Detonator*

**Technical Information**

**Product Description**

ELECTRIC SUPER DiPED offers an increased level of protection from accidental initiation or unauthorized use never before available from an electric detonator in shot-hole geophysical data acquisition projects for users of geophysical exploration explosives. ELECTRIC SUPER DiPED is a high strength, electric seismic detonator protected with zener diodes and utilizing the proven Super Seismic phenolic plug. ELECTRIC SUPER DiPED does NOT require a blaster interface, software or programming and, in fact, contains NO programming capabilities. Testing is conducted with a special ELECTRIC SUPER DiPED ohm meter. ELECTRIC SUPER DiPED is compatible with seismic condenser discharge blasting machines that are ouput rated at 400 volts/ 100 microfarads.

**Customer Benefits**

- ELECTRIC SUPER DiPED offers improved safety and security with performance equal to or greater than Electric Super Seismic high strength detonator.
- ELECTRIC SUPER DiPED cannot be detonated with 120 volt AC current or dry or wet cell batteries. **ALWAYS** use a seismic condenser discharge blasting machine.
- ELECTRIC SUPER DiPED is stray current protected: 160 volts (AC/DC for 30 seconds).
- ELECTRIC SUPER DiPED is compatible with all vintages of seismic blasters.
- ELECTRIC SUPER DiPED requires NO interface equipment.
- **ALWAYS** test with ELECTRIC SUPER DiPED ohm meter ONLY.
- ELECTRIC SUPER DiPED provides fast, consistent reaction time (0.5 milliseconds).
- ELECTRIC SUPER DiPED performs optimally after extended sleep time in water filled boreholes and provides 250 psi (180 m / 590 ft) protection from hydrostatic head).
- Performs optimally in a wide temperature range (-40°C to +65°C).

* Patent Pending

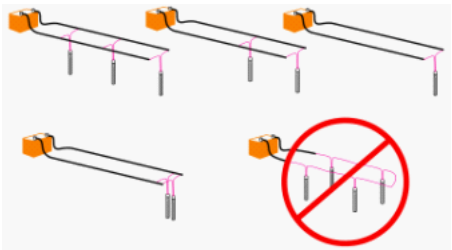
## Properties

MSDS #1076

| | |
|---|---|
| **Wire Color / Type** | Magenta (Pink) Duplex |
| **Wire Tensile Strength** | 22.5 lbs / 100 N (Newtons) |
| **Maximum Water Pressure** | 250 psi / 590 ft |
| **Shelf Life Maximum** | 5 years (from date of production) |
| **Operational Usage Temperature** | +150° to -40°F (+65° to -40°C) |
| **Net Explosive Content** per 100 units | 0.0925 kg<br>0.2039 lb |
| **Recommended Firing Energy** | 400 volts<br>100 microfarads |
| **Recommended Firing Circuit** | Parallel ONLY /<br>Maximum 5 detonators |
| **DiPED Legwire** | Duplex 3.6 - 43 m<br>12 - 140 ft |


**ALWAYS Wire DiPED in a PARALLEL Circuit.**

**NEVER Wire DiPED in a SERIES Circuit.**



**ALWAYS observe and follow standard industry best practices when using radios around electric detonators.**

**Hazardous Shipping Description**

Detonators, electric, 1.4B UN 0255 II

| | |
|---|---|
| **Spooled** | EX 2007090239 |
| **Duplex Wire Kirks** | EX 2007090239 |




See Product Disclaimer on page 2.

DYNO Dyno Nobel

Groundbreaking Performance™

# Electric Super™ DiPED™

## Technical Information

### Testing the ELECTRIC SUPER DiPED

- Every ELECTRIC SUPER DiPED is 100% tested after final assembly. An internal resistor serves as a double check for the blaster to check continuity only. If the wire exhibits a complete circuit, the ELECTRIC SUPER DiPEDwill function properly.
- The recommended tester for the ELECTRIC SUPER DiPED is a DiPED ohm meter which will read approximately 47,000 ohms plus the wire length resistance.

### Application Recommendations / Safety and Security

- **ALWAYS** use the specially designed ELECTRIC SUPER DiPED ohm meter to check for a detonation path to the ELECTRIC SUPER DiPED detonator. A condenser discharge blasting machine with sufficient voltage and energy to detonate the ELECTRIC SUPER DiPED must **ALWAYS** be used.
- ELECTRIC SUPER DiPED is NOT immune to electromagnetic induction which may cause unintended detonation. **ALWAYS** employ best industry practices when using electric detonators near broadcasting radios.
- The ELECTRIC SUPER DiPED detonator cannot be detonated with a 12, 24 or 36 DC volt battery or 120 volts AC. Higher voltages (up to 160 volts AC/DC for 30 seconds) will not detonate the ELECTRIC SUPER DiPED. The ELECTRIC SUPER DiPED detonator will function normally after being subjected to these voltage sources.
- **NEVER** cause initiation by severe impact, friction, flame or heat.
- **ALWAYS** keep electric detonator wires, the blasting circuit and lead wires shunted unless testing field resistance, connecting or ready to fire.
- **ALWAYS** twist-shunt electric detonator legwires after the factory shunt is removed.
- **NEVER** handle or use electric detonators when stray current or static electricity is present or during lightning storms.
- **NEVER** connect ELECTRIC SUPER DiPED in the same series with other seismic detonators (including Electric Super™ Seismic) or any other type of electric detonators because of differences in firing characteristics. Misfires may result.

### Transportation, Storage and Handling

- ELECTRIC SUPER DiPED must be transported, stored, handled and used in conformity with all federal, state, provincial and local laws and regulations.
- For maximum shelf life (5 years), ELECTRIC SUPER DiPED must be stored in a cool, dry, well ventilated magazine. Explosive inventory should be rotated. Avoid using new materials before the old. For recommended good practices in transporting, storing, handling and using this product, see the booklet "Prevention of Accidents in the Use of Explosive Materials" packed inside each case and the Safety Library Publications of the Institute of Makers of Explosives.

### Packaging

| Legwire Length | | Wire Configuration | Quantity per | | Weight per | | | |
|---|---|---|---|---|---|---|---|---|
| m* | ft | | carton or case | case or shipping tray[b] | carton or case | | shipping tray[b] | |
| | | | | | kg | lbs | kg | lbs |
| 3.6 | 12 | Kirked | 25 | 250 | 1.5 | 3.2 | 14.52 | 32 |
| 7 | 24 | Kirked | 15 | 150 | 1.5 | 3.3 | 14.97 | 33 |
| 10 | 35 | Kirked | 10 | 100 | 1.4 | 3.1 | 14.06 | 31 |
| 13 | 45 | Kirked | 8 | 80 | 1.2 | 2.7 | 12.27 | 27 |
| 16 | 55 | Kirked | 7 | 70 | 1.5 | 3.3 | 14.96 | 33 |
| 19 | 65 | Kirked | 6 | 60 | 1.5 | 3.4 | 15.44 | 34 |
| 19 | 65 | Spooled | 20 | 80 | 22.5 | 49.5 | N/A | N/A |
| 25 | 85 | Spooled | 10 | 40 | 15.3 | 33.6 | N/A | N/A |
| 30 | 100 | Spooled | 10 | 40 | 17.0 | 37.5 | N/A | N/A |
| 36 | 120 | Spooled | 10 | 40 | 20.0 | 44.0 | N/A | N/A |
| 43 | 140 | Spooled | 10 | 40 | 25.0 | 55.2 | N/A | N/A |

• Length rounded to nearest whole meter. [a] #20 AWG Duplex Copper Wire

[b] 10 shipping cases per disposable shipping tray. The disposable shipping tray is not part of the legal shipping package and is used only to prevent "relative motion" while in transit. If the tray is not used, it is mandatory that all explosives shipments are properly blocked and braced.

### Case Dimensions

| | | |
|---|---|---|
| Kirked | 26 ½ x 16 x 10 cm | 10 ⅜ x 6 ¼ x 3 ⅞ in |
| Spooled | 52 x 41 x 17 cm | 20 ¾ x 16 ¼ x 6 ½ in |



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