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## Pulse Shield SD<sup>®</sup> 200 °C

### Insulation Description

Pulseshield SD is Rea's patented (US Patent Number 6056995) and UL approved magnet wire specifically designed for Inverter-duty Motors. It is based on Rea's Super Hyslik 200 adding a shield coat of oxide-based insulation to neutralize the damage caused by the voltage stresses introduced by Variable Speed Drives. The triple film insulation system is composed of THEIC modified polyester, oxide-based shield coat and a polyamideimide (AI) overcoat. The utilization of Rea's Pulseshield dramatically increases motor life in inverter-duty applications over standard Nema MW 35 magnet wire.

Conductors		Available Builds	Available AWG Sizes	Rea Abbreviation	Applicable Specifications			
Configuration	Metal				NEMA	Federal	IEC	JIS
Round	Copper	Heavy	14 to 24	HTAIHSD	MW 35,73-C	K/14	317-13	317-13
Rectangular	Copper	Heavy		HTAICRSD	MW 36-C	K/13	317-29	317-29

### Typical Applications

- Industrial motors used with IGBT Inverters.
- High voltage motors.
- High Frequency transformers.

**Features and Benefits**

- Oxide-based shield coat to withstand the effects of high frequencies, transient spikes and quick-rise-time pulses seen by motor windings in inverter-duty applications.
- Continuous operating temperature of 200 °C.
- Tough abrasion resistant surface which withstands automated winding operations.
- Excellent dielectric performance and corona resistance.
- Superior chemical and moisture resistance, especially in hermetic and refrigerant applications.
- Superior thermal overload protection, especially in locked rotor condition.

**Application Precautions**

- Avoid excessive elongation during winding to avoid loss in pulse resistance
- Less subject to solvent shock and crazing than standard polyester magnet wires, but a gradual preheating before varnishing or encapsulating is recommended for optimum performance.
- Insulating materials containing chlorine, such as, neoprene, polyvinyl chloride, chloroprene and chlorowaxes, should be avoided in enclosed or sealed systems. These materials release HCl at temperatures above 105 °C which may be harmful to the insulation.