



# SHIELDSEAL 3991

Shieldoseal 3991 series creates a electrically and thermally conductive connection between components. Used for ESD and EMI shielding applications.



Shieldoseal is a 65-durometer adhesive sealant that is made of a one-part, electrically conductive silicone-based adhesive with micron-sized nickel-coated graphite particles with excellent filling properties. Shieldoseal cures quickly at room temperature (RTV) in the presence of atmospheric moisture. It can cure on metals (copper, aluminum, stainless steel, brass, etc.), ceramics, and most plastics and can be used in environments from -50 up to + 175 °C without the loss of physical or electrical properties. The material remains as elastic as rubber and is homogeneously conductive.

Shieldoseal can be used to bond conductive elastomer gaskets field conductive gaskets, to attach shielding windows to edge frames, bond conductive elastomer gaskets, and for EMI and environmental protection as a sealant. Shieldoseal is a high-performance non-corrosive silicone material that meets the requirements of MIL-A-46146 and will form a cured skin within 60 minutes without the formation of corrosive byproducts of exposure to atmospheric moisture. Shieldoseal is a thixotropic paste that can be published on vertical surfaces without prolapsing.

## SPECIFICATIONS

Elastomer adhesive	Silicone	
Filler material	Nickel coated graphite	
Specific gravity	2.010	
Hardness (Shore A)	65	
Tensile strength (PSI)	Min.	500
	Min.	100
Elongation (%)	Max.	300
Peel strength (PPI)	Min.	4.0
Lap shear (PSI)	Min.	130
Lower operating temperature °C	Min.	-50 °C
Higher operating temperature °C	Max.	+175 °C
Compression deflection (%)	Min.	2.5
Volume resistivity, Ohm/cm	Max.	.100
Shelf life	Six months from date of manufacture	

## CONDUCTIVE ADHESIVE

Specification	Unit	3991
Metal with metal		Good
Metal with RFI gasket		Good
RFI gasket with RFI gasket		Good
Viscosity upon delivery		Viscous
Catalyst	21 °C	Air humidity
Resistance against	UV, ozone	Yes
Storage time: plastic cartridges	Weeks	2
Storage time: aluminum	Weeks	8

## CURING

Specification	Unit	3991
Curing at room temperature	21 °C	Yes
Tack free	Min.	60
Light handling	Hrs.	12 - 24
Full cure	Hrs.	96 - 144
Odorless		No

## CAN BE ORDERED SEPARATELY:



3991-M : Shieldoseal manual gun



3991-P : Shieldoseal pneumatic gun

## ORDER EXAMPLE

### Part number

- 3991** : Shieldoseal 130 g plastic cartridge
- 3991-M** : Shieldoseal manual gun
- 3991-P** : Shieldoseal pneumatic gun