



# STOCKWELL ELASTOMERICS

MANUFACTURING SOLUTIONS THROUGH ENGINEERED MATERIALS

## Conpad™ Conductive Grounding Pads

Conpads™ Conductive Grounding Pads Cushion Aerospace Hardware against Damage and Safely Ground ESD

Cushioning and ESD Protection for Solid Fuel Rocket Motors and Related Hardware, from Storage to Launch

### Product Description:

Conpads™ Conductive Grounding Pads protect solid fuel rocket motors by safely grounding ESD and cushioning motor housings and associated hardware against impact and vibration.

Stockwell Elastomerics fabricates Conpads to your specifications. You install them on-site, using a cold-bonding adhesive system that eliminates the need for hot vulcanization. We can help you select laminate combinations and teach your technicians how to bond Conpads to steel or aluminum chocks and support structures using RTV60-CON conductive silicone adhesive.

Stockwell Elastomerics provides samples of typical CONPAD configurations with RTV60-CON adhesive for evaluation and compatibility testings. A [video](#) is available for your technicians.

## How to Specify a Conductive Grounding Pad

0418 - 65 - 050 - 0

Cushion Material	
0418	Extra-Firm Silicone Sponge
0480	Medium Silicone Sponge
0405	Soft Silicone Sponge

Surface Laminate	
65	5 Ohm- Silicone (.030" Thick Conductive Layer)

Sponge Thickness*	
025	0.25 +/- .04"
038	0.38 +/- .045"
050	0.50 +/- .05"
100	1.00 +/- .10"
150	1.50 +/- .15"
200	2.00 +/- .20"

*\*Custom thickness between 0.25" and 2.00" available*

Edge Treatment	
0	Conductive surface lamination wrapped around side edges
3	Conformable conductive coating
1	Conductive surface one side

**Sponge Thickness**

**Conductive Surface Laminate**

**Silicone Sponge**

**Surface Lamination Wrapped Around Side Edges (-0, shown above) or Conformable Conductive Coating (-3)**

For example, the Conpad callout **0418-65-050-0**, 10.0" W x 30" L, specifies a 10" wide x 30" long conductive grounding pad, with .50" thick Firm silicone sponge core and .030" thick SE65-CON wrapped around the top, bottom, and 30" long edges. (The .50" x 10.0" sponge edges would remain exposed).



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**For long term outdoor use**, Stockwell Elastomerics suggests a conductive silicone rubber cover laminated over silicone sponge. This laminate uses .030" SE65-CON, a carbon filled conductive silicone cover that offers long term dependability. In accelerated age testing by U.S. Testing Company, this laminate resisted aging due to sunlight and ozone for 10 years. It also has the broadest temperature range, from -65°F to 450°F. Its volume resistivity is rated at 5 Ohm-cm.

## RTV 60-CON Typical Performance Characteristics

Application Properties*		Cured Properties**	
Color	Black	Durometer, Shore A	35
Solids Content, %	75	Tensile Strength, Pounds/Square Inch	400
Skin Over Time, Minutes	7	Elongation, %	300
Tack Free Time, Minutes	45	Tear, Pound/Inch	40
Extrusion Rate, Grams/Minute 1/8" Nozzle @ 90 psi	>600	Volume Resistivity, Ohm-cm	5
Specific Gravity @ 25°C	0.93	Specific Gravity @ 25°C	1.04

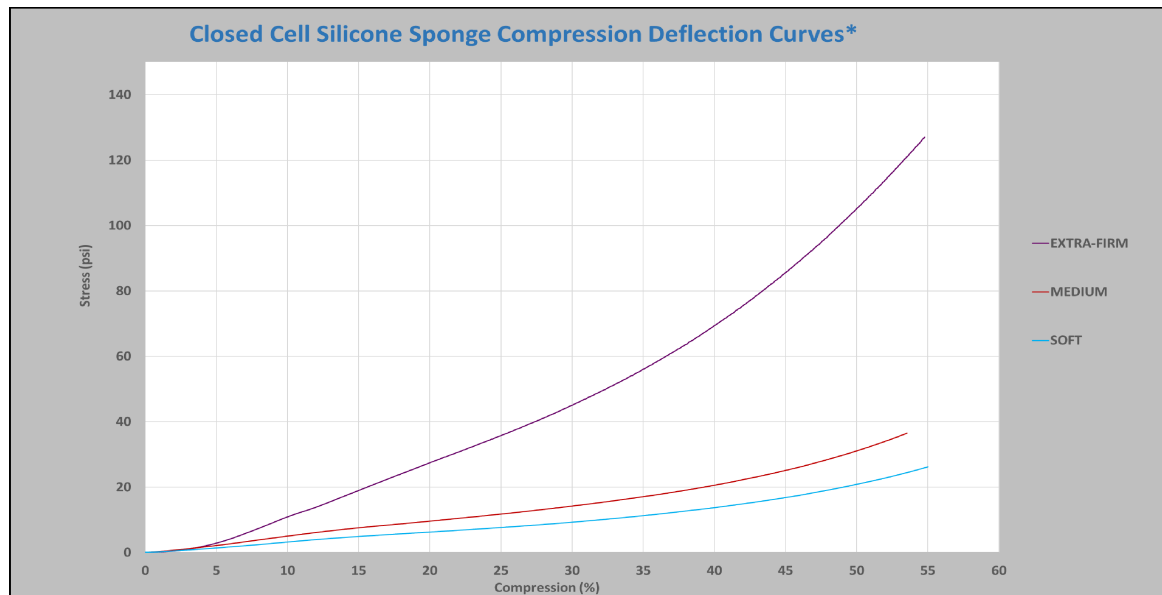
\* Provided in 10.3 ounce cartridges, shelf life 6 months when refrigerated

\*\* 7 days at 25% Relative Humidity and 70°F

**RTV60-CON Adhesive/Sealant** is one part electrically conductive silicone rubber elastomer adhesive for bonding electrically conductive silicone to metal assemblies, typically used to promote ESD protection. It cures at room temperature when exposed to atmospheric moisture. The by-products of curing are **amines**, not acetic acid. MSDS is available.

[Click Here for Video: Bonding a Conductive Grounding Pad to Aluminum Using RTV60-CON Adhesive](#)

**Compression Force Deflection (CFD)** is the amount of force required to deflect a material by a certain percentage of its original height. CFD is one of the factors to consider when selecting the firmness of silicone sponge that is best for the Conpad application.



\* Nominal Values for Design Reference, Data begins at 10% Deflection

Conpads™ is a trademark of Stockwell Elastomerics.