P-429 Gel

Product Information

General Information

P-429 is an extremely soft, tacky, transparent, resilient silicone rubber gel. It is a two component, addition cure material that is sensitive to cure inhibition when in contact with sulfur, nitrogen or organo-tin containing materials. P-429 has a low viscosity that allows for easy mixing, deairing, and pouring. It is used for potting or encapsulating electrical parts where visual inspection is required. It has excellent electrical insulating properties and provides superior damping characteristics. P-429 has greater mechanical properties than traditional gels and can be used in conjunction with platinum cured special effect silicones to produce realistic simulations of living tissue.

Typical Properties

Uncatalyzed Compound

Color                      Base: Transparent          Activator: Transparent
Viscosity (cps)            Base: 6,000 - 8,000      Activator: 6,000 - 8,000
Mixing Ratio (B/A)         By weight: 1 / 1           By volume: 1 / 1
Mixed Viscosity            6,000 - 8,000
Working Time               2 to 4 hours
Cure Time                  18 - 24 hours
Shelf Life                 6 months

Vulcanized (cured) Properties (7 days @ 70° F / 50% relative humidity)

Penetrometer Measurement (mm) 1 Day: 40 - 60 7 Days: 50 - 70
Tensile Strength (ASTM D412) <100 psi
Elongation (ASTM D412) >500 %
Shrinkage                  nil
Specific Gravity            1.00
Dielectric Strength (volts/mil) 500
Dielectric Constant (@ 100 HZ) 2.9
Dissipation Factor (@ 100 HZ) 0.003
Volume Resistivity (ohms/cm) 1 x 10^{15}
Service Temperature (° F) -50 to 300

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