

# PURmix<sup>®</sup> Static Dissipative Silicone Compounds

## PRODUCT DESCRIPTION

This platform of industrial-grade platinum curable silicone (VMQ) rubber contains patented technology offered exclusively by NovationSi<sup>®</sup>. The platform highlights light shielding, static dissipation, and grounding electrical performance. This product is offered as peroxide cured or platinum catalyzed and is available as a 1- or 2-part compound for additional shelf-life.

TYPICAL POLYMER PROPERTIES		
Property	Unit	Value
Resistance at 6 volts*	ohm	15 – 35
Current Density at 6 volts*	mA/cm <sup>2</sup>	60 – 120
Power at 6 volts*	watts	0.1 – 0.5
Color	n/a	Black
Viscosity at 10s <sup>-1</sup>	Pa·s	8 x10 <sup>3</sup> – 42 x10 <sup>3</sup>
Solubility	n/a	Alcohols & Silicones
Specific Gravity at 23°C	g/cc	1.135
Glass Transition Temperature (T <sub>g</sub> )	°C	-69

TYPICAL RHEOLOGICAL PROPERTIES		
ASTM D5289 10 minutes at 170°C		
Property	Unit	Value
ML, Minimum Torque	in-lb.	2 – 5
MH, Maximum Torque	in-lb.	12 – 18
Ts <sub>2</sub> , Time to 2 in-lb. rise	seconds	30 max.
T90, Time to 90% cure	seconds	90 max.

TYPICAL PHYSICAL PROPERTIES						
Press cured: 10 minutes at 170°C NPC		Values by Grade				
Property	Unit	40	50	60	70	80
Specific Gravity	g/cm	1.09	1.12	1.16	1.19	1.25
Hardness, Shore A	points	37	49	58	69	83
Tensile at Break	MPa (psi)	5.0 (725)	5.5 (800)	6.2 (900)	6.6 (950)	6.9 (1000)
Elongation at Break	%	400	350	300	250	120
Tear Die B	kN/m (ppi)	17.5 (100)	17.5 (100)	17.5 (100)	17.5 (100)	17.5 (100)
Volume Resistivity*	ohm·cm	3 – 8	3 – 8	3 – 8	2 – 8	1 – 8
Test Condition: DBPH (50%) Peroxide	phr	0.3	0.5	0.8	1.0	2.0

\*Per ASTM D991

## FEATURES AND BENEFITS

- Low electrical resistance at low voltages (3 to 9 volts)
- Conductive to 5 ohm·cm resistivity
- Broad service temperature range: -50°C to +200°C
- Maintains electrical properties after high shear molding
- Lower extractables and leachable substances than traditional carbon black systems
- Offered as peroxide cured or platinum catalyzed and available in 1-part (1K) and 2-part (2K) systems
- Patented technology

## SUGGESTED USES

- Conductive applications in low-voltage systems, including electrostatic-dissipative and grounding equipment in industrial environments

## APPLICATIONS

- Molding, calendaring, and extrusion

## PROCESSING

- Standard water-cooled internal mixers or two-roll mills
- Molding temperature as low as 115°C
- Postcure is typically not required

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### ISO 9001 CERTIFICATION

All NovationSi materials are manufactured at our ISO 9001 registered facility.

### SHELF LIFE, STORAGE, AND MIXING

Shelf-life ranges from 3 months to 12 months from the date of manufacture depending on the catalyst preference.

### SPECIFICATIONS

Do not use the typical properties shown in this technical profile as a basis for preparing specifications. Please contact NovationSi for assistance and recommendations in establishing limits for this product.

### HEALTHCARE APPLICATIONS

**Caution:** Do not use NovationSi materials in healthcare applications involving implantation in the human body or contact with internal body fluids or tissues, unless the material has been supplied by NovationSi under a written agreement that expressly acknowledges and permits such use in accordance with NovationSi's policy on healthcare applications.

### REACH SVHC STATEMENT (LIST OF 235 SUBSTANCES)

This product does not contain any Substances of Very High Concern (SVHC) as identified under Article 33 of Regulation (EC) No 1907/2006 (REACH), including the June 14, 2023, additions by ECHA, at concentrations above the threshold value of 0.1% (w/w). The SVHCs currently on the Candidate List are not part of the formulation, are not known reaction products, and are not intentionally added to the referenced products. This statement is based on information provided by our suppliers and our current knowledge of the product's composition.

### RoHS COMPLIANCE

This product conforms to European Commission Directive 2015/863/EU as of the date of this statement. It does not contain more than 0.1% by weight lead, mercury, hexavalent chromium, polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE), bis(2-ethylhexyl) phthalate (DEHP), benzyl butyl phthalate (BBP), dibutyl phthalate (DBP) or diisobutyl phthalate (DIBP), and no more than 0.01% by weight cadmium.

### CALIFORNIA PROPOSITION 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

**REACH, RoHS, and California Proposition 65 statements are provided in good faith as of the revision date of this Product Information Sheet.**

**Please refer to the Safety Data Sheet (SDS) for additional details regarding product composition, characterization, hazardous information, personal protective equipment (PPE) use, and relevant regulatory information. For further information, please contact NovationSi.**

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### **REVISION INFORMATION**

This is a publication of Novation Solutions (NovationSi). The effective revision date: 6/22/2025

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