SIOResin Launches SIO-517 Innovative Silicone Resin Combining High Hardness and Toughness

SIOResin's SIO-517 Silicone Resin offers 8H Hardness, 20-30 Years of Durability, and Stable Performance at 650°C High Temperatures for RT curing coatings

room temperature curing high-temperature resistant silicone resin

LOS ANGELES, CA, UNITED STATES, January 8, 2025 /EINPresswire.com/ -- SIOResin® proudly announces the launch of SIO-517, a revolutionary room temperature curing high-temperature resistant silicone resin. Designed to address long-standing industry challenges, SIO-517 stands out by achieving a remarkable balance between high hardness and toughness. The cured resin forms a dense, durable coating that protects surfaces from environmental damage while remaining resilient under extreme conditions.

https://www.sioresin.com/silicone-resin/sio-517-solvent-free-silicone-resin.html

> Outstanding performance under high temperatures. SIO-517 keeps our machinery surfaces smooth and damage-free”
>
> *Kerwin B*

Unmatched Performance for Extreme Environments
SIO-517’s exceptional properties include:
1 High Hardness and Toughness: With a cured hardness exceeding 8H, SIO-517 maintains structural integrity without cracking or peeling, even in harsh conditions, providing reliable protection for 20-30 years.
2 High-Temperature Stability: SIO-517 withstands temperatures up to 650°C without discoloration, making it ideal for applications requiring long-term heat resistance.
3 Corrosion Resistance: The coating isolates metal surfaces from water, air, and salt, ensuring

superior corrosion resistance and long-lasting durability.
4 Environmentally Friendly: With zero VOCs, high solid content, and low viscosity, SIO-517 meets stringent environmental standards while delivering excellent application versatility.

SioResin

Versatile Applications
SIO-517 is suited for a wide range of industries and applications, including:
1 High-temperature coatings for household appliances, stoves, and automotive exhaust systems.
2 Weather-resistant coatings for outdoor structures, pipelines, and equipment.
3 Anti-corrosion coatings for industrial and marine environments.
4 Base material for fireproof, thermal conductive, and heavy-duty protective coatings.

Starting Formula for Customization
To help users achieve optimal results, SIOResin recommends the following reference formula as a starting point:
Component A:
SIO-517A: 100 parts
High-Temperature Pigment: 22 parts
Mica Powder: 11 parts
Low Melting Point Glass Powder (380°C): 22 parts
High Purity Zinc Phosphate: 11 parts
KH560 Silane Coupling Agent: 0.5 parts
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Procedure:
Disperse all components uniformly at 1200–1500 r/min for 45 minutes. Use a 200-mesh filter bag for packaging.
Component B:
SIO-517B: Mix with Component A in a ratio of 100: 2–3.
For Component B, mix SIO-517A with curing agent B in a ratio of 100:2~3. Spray or brush the coating with a thickness of 25-35 μm, ensuring the substrate is clean and prepped for optimal adhesion.

Endorsement from SIOResin's CEO, Mr. Zhang
"SIO-517 is a transformative advancement in silicone coating technology," stated Mr. Zhang, CEO of SIOResin. "Our goal was to address the longstanding challenge of balancing hardness and toughness while delivering eco-friendly solutions. SIO-517 achieves this and more, offering our customers unmatched durability and environmental compliance."

Availability

SIO-517 is available in 200KG packaging and offers a shelf life of six months when stored under appropriate conditions.

About SIOResin®
SIOResin® is a leading manufacturer specializing in innovative waterborne raw materials, offering comprehensive solutions for R&D, production, sales, and services. With a market-driven approach and a commitment to continuous innovation, SIOResin serves a wide range of industries including coatings, cosmetics, textiles, biology, machinery, construction, and medicine. Their product extensive product line includes water-based Polyurethane, waterborne Acrylic Resin, water-based Additives, Silicone Resin, Silicone Rubber, and waterborne curing agents, etc. Supported by a team of experts and multiple national patents, provide high-quality, competitive solutions that help clients succeed.

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For more information or to request samples, please visit https://www.sioresin.com or contact sales@sioresin.com
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