

PROSILANE™ SC-5424

ETHYLPOLYSILICATE 40

PRODUCT DESCRIPTION

Ethylpolysilicate 40 (EPS 40) is a partially hydrolyzed ethyl silicate with about 40% silicon dioxide content. It is a pale-yellow to colorless liquid and serves as a versatile precursor for silica formation. It is widely used in coatings, foundry, and industrial applications for its excellent bonding, film-forming, and water-repellent properties.

TYPICAL PRODUCT DATA*

Property	Unit	Typical Value
CAS\$	-	68412-37-3 & 11099-06-2
Molecular Weight	g/mol	750
Formula		Si(OC ₂ H ₅) ₄
Appearance	-	Colorless clear liquid
Boiling Point	°C	160
Flash Point	°C	62
Refractive Index	-	1.397
Density	g/cm ³	1.06
SiO ₂ content	%	40-42

* These values are not intended to be used as specifications but as suggested characteristics

PACKAGING

The size of the available packages can be checked with Sales Department. SC-5424 is typically supplied in 200kg steel drums or 1000kg IBC totes.

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ SAFETY DATA SHEET AND CONTAINER LABELS FOR SAFE USE, PHYSICAL, ENVIRONMENTAL, AND HEALTH HAZARD INFORMATION.

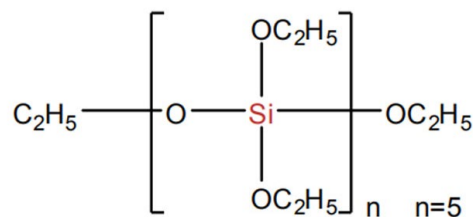
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TECHNICAL DATA SHEET



TYPICAL FEATURES AND APPLICATIONS

SC-5424 can be applied neat, diluted or as part of a formulated product. Applied to natural stones or other construction materials, it forms a silica-gel like binder (SiO₂) that increases the substrate strength. Polymerization of silicone resins for use in paints and other surface modification applications.

SC-5424 may be used as a starting material for sol-gel process. It may also be used as a crosslinker component for silicone adhesive in cold curing silicone rubber systems and may be used as a hardening component in dentistry for impression materials and as binder for embedding material.

On glass and plastic lens materials, SC-5424 provides a scratch-resistant, hard-coat to the finish.

INFORMATION FOR USE

SC-5424 is used to deposit silicic acid formed as a result of complete hydrolysis. The resulting silicic acid bonds well to many inorganic substrates, such as ceramic, fillers, glass, metal, pigments and synthetic fibers. The deposition of a thin SiO₂ layer improves the chemical and the thermal stability and mechanical properties.

SC-5424 orthosilicate may be used as a binder in zinc-rich (corrosion resistant) coating. SC-5424 may be used as a binder in precision foundry industry.

SHELF LIFE AND STORAGE

In the unopened original container SC-5424 has a shelf life of one year in a dry and cool place.