

SILBOND[®] 40

Ethyl Polysilicate

SPECIFICATIONS:

Color	30 APHA max.
Specific Gravity	1.055 - 1.065 at 20° C (68° F)
Acidity	0.001% max. (as HCl)
Alkalinity	0.001% max. (as NH ₃)
Silica Content	40.0% by wt. min. as SiO ₂
Low Boilers	2.5% by wt. max. by GLC
Iron	3 ppm max.

PHYSICAL PROPERTIES:

Form	Water-white liquid
Molecular Weight	744 Average
Density	8.83 lbs./gal. 68°F (20°C)
Boiling Point	Initial 172°F (78°C) at 1 atm.
Freezing Point	-130°F (-90°C)
Flash Point	81°F (27.22°C) Tag Closed Cup
Viscosity	5.2 cps. at 25°C (average)
Coefficient of Expansion	0.00096 at 20°C a

USES: SILBOND[®] 40 is a concentrated form for obtaining usable silica. It is partially hydrolyzed mixture of monomers, dimers, trimers, higher polymers and cyclic polysilicates. Average -Si-O-Si- chain length is about five. It is commonly used as an intermediate towards less concentrated, more highly hydrolyzed binders for a variety of end uses. Like Silbond[®] Condensed, these binders are used for inorganic zinc rich coatings, investment casting molds, cores and ceramic shapes and coatings. Other Silbond Corporation bulletins describing basic chemistry and specific applications of ethyl silicate are available

SAFETY AND HANDLING:

Our [material safety data sheet](#) describes all aspects of the proper and safe use of this product.

SHELF LIFE: Stored unopened and under proper conditions, the shelf life is expected to be a minimum of one (1) year.

All information concerning this product and/or all suggestions for handling and use contained herein are offered in good faith and are believed to be reliable. Silbond Corporation, however, makes no warranty as to the accuracy and/or sufficiency of such information and/or suggestions, as to the product's merchantability or fitness for any particular purpose, or that any suggested use will not infringe any patent. Nothing contained herein shall be construed as granting or extending any license under any patent. Buyer must determine for himself, by preliminary tests or otherwise, the suitability of this product for his purposes. The information contained herein supercedes all previously issued bulletins on the subject matter covered.