TECHNICAL DATA SHEET

QSil Primer No. 5
Primer-Silicone Adhesion Aid

Description

The primer is a complex solution of reactive silanes in a volatile solvent. Upon application, the carrier solvent evaporates leaving behind a layer amenable to bonding various silicone elastomers. An appropriate combination of primer and application procedure can yield a bonding layer capable of adhering silicone to a variety of substrates. Primers typically enable adhesion at relatively low temperature.

Key Features

- For use with condensation and addition cure materials
- Transparent, highly suited for optical applications
- Will not haze, crack, or craze polycarbonate or acrylic
- One-component, carried in alcohols

Application

QSil Primer #5 is for use with condensation and addition cure silicone elastomers and is safe to use on polycarbonate and acrylic.

Use and Cure Information

Surfaces to be bonded should be dry and free from grease, oil, dust, and release agents. Non-porous substrates should be solvent degreased prior to application of the primer.

Property	Test Method	Value
Product		
Solids Content (%)		**4 %**
Uncured Product		
Appearance		**Colorless to pale yellow**
Color		**Transparent to pale yellow**
Cure Profile		**>40% humidity**
Cure Type		**Condensation**
Flash Point °C	BS 2000-34	**-0.5 °C**
Rheology		**Liquid**
Specific Gravity		**0.82**
Tack Free Time / Skin Formation at 23°C/73°F		**30 min**
Storage		
Max Storage Temperature		**38 °C / 100 °F**
Shelf Life		**24 mths**

The primer formulations can be applied to a substrate via a variety of methods. Suggestions include: wiping with a lint-free cloth, painting with a brush, dipping the substrate in a bath of primer, and spraying. The appropriate cured primer film thickness is dependent on the substrate and application. Film thicknesses ranging from a few hundred nanometers up to approximately 12 microns (0.5 mil) are typical. In the case of Pt-cure systems, a primer can form a protective layer that prevents inhibition.

The end user should establish the appropriate process parameters for their specific application. The active ingredients require moisture to cure and should be in an environment having relative humidity greater than 40%. The primer should be allowed to cure for approximately 30 minutes prior to application of the silicone. The cure may be accelerated with modest heating, such as 50 °C for 10 minutes. If maintained contaminate-free, primed parts can be used from a few to several hours later—it is suggested that the end user establish these parameters in the context of their application.

Health & Safety

The primer contains solvents which are classified as hazardous under current regulations. Please observe the safety data sheets and the safety statements on the container labels when handling our products. The dangerous goods regulations and the accident prevention regulations of the professional associations must be particularly observed. Keep the safety data sheet of the applied product at hand since it provides useful instructions for the safe use and disposal of the product as well as for actions to be taken in case of accidents.

Revision Date	12 Feb 2024
Revision No	7
Download Date	28 Mar 2024

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