SICOMET®

Sicomet® 99

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PRODUCT DESCRIPTION

Sicomet® 99 provides the following product characteristics:

Technology	Cyanoacrylate
Chemical Type	Methyl cyanoacrylate
Appearance	Clear to slightly hazy liquid
Components	One part - requires no mixing
Viscosity	High
Cure	Humidity
Application	Bonding
Key Substrates	Rubbers, Metals and Plastics

Sicomet® 99 is a general purpose high viscosity instant adhesive based on Methyl-2-cyanoacrylate. The product is designed for high-strength metal bonding. Due to the special formulation Sicomet® 99 is also suitable for metal-rubber and metal-plastic bonding. Due to the high viscosity Sicomet® 99 is suitable for gaps up to 0.2 mm. This product is typically used in applications with an operating range up to +100 °C.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Density, ISO 12185, g/cm³	1.07 to 1.12
Viscosity, Cone & Plate, 20 °C, mPa·s (cP):	
Shear rate 100 s^{-1}	1,750 to 2,250
Viscosity, Brookfield, 20 °C, mPa·s (cP):	
Spindle 3, speed 100 rpm	2,000 to 2,200

Flash Point - See SDS

TYPICAL CURING PERFORMANCE

Under normal conditions, the atmospheric moisture initiates the curing process. Although full functional strength is developed in a relatively short time, curing continues for at least 24 hours before full chemical/solvent resistance is developed.

Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The table below shows the fixture time achieved on different materials at 22 °C / 50 % relative humidity. This is defined as the time to develop a shear strength of 0.1 N/mm² .

Fixture Time, seconds:	
Aluminum	60 to 90
EPDM	9 to 25
Polycarbonate	30 to 100

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Safety Data Sheet (SDS).

Directions for use

1. Bond areas should be clean and free from grease. Clean all surfaces with a Loctite® cleaning solvent and allow to dry.
2. To improve bonding on low energy plastic surfaces, Sicomet Power Primer may be applied to the bond area. Avoid applying excess Primer. Allow the Primer to dry.
3. Sicomet Activator HI Speed may be used if necessary. Apply it to one bond surface (do not apply activator to the primed surface where Primer is also used). Allow the Activator to dry.
4. Apply adhesive to one of the bond surfaces (do not apply the adhesive to the activated surface). Do not use items like tissue or a brush to spread the adhesive. Assemble the parts within a few seconds. The parts should be accurately located, as the short fixture time leaves little opportunity for adjustment.
5. Sicomet Activator HI Speed can be used to cure fillets of product outside the bond area. Spray or drop the activator on the excess product.
6. Bonds should be held fixed or clamped until adhesive has fixtured.
7. Product should be allowed to develop full strength before subjecting to any service loads (typically 24 to 72 hours after assembly, depending on bond gap, materials and ambient conditions).

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.
Optimal Storage: 2 °C to 8 °C. Storage below 2 °C or greater than 8 °C can adversely affect product properties.
Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Henkel representative.

Conversions

(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
µm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

Disclaimer

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