




Gelest® RG 03 2-Part Hydrophilic Reprographic Silicone Elastomer (10:1 kit)

Capsular Description:	Thickness  thick	Cure Pt catalyst	Hardness  medium	Type  100% active 2-part
-----------------------	---	-------------------------	---	---

Description

Gelest® RG 03 is a clear to translucent, high definition molding and encapsulation compound with improved surface wettability and reduced coefficient of friction compared to conventional silicones. Microfluidic features exhibit lower hydrodynamic back-pressures.

Cured Properties

Tensile Strength	4.0-6.0 MPa
Elongation	100-200%
Durometer, Shore A	40-60
Refractive Index (25°C)	1.43

Coefficient of Friction

(aqueous environment, 37°C) **1.0-1.5**

Tear Strength	1.75-2.10 kN/m
Specific Gravity	1.04
Contact Angle, water	85°

<u>Standard Reprographic PDMS</u>	
Coefficient of Friction	≈2
Contact Angle, water	110°

Uncured Properties of Gelest® RG 03

Viscosity (10:1) catalyzed:	3000-4000 cSt
Part A (base):	3500-4500 cSt
Part B (crosslinker):	50-75 cSt

Application Methods

Thoroughly mix Part A and Part B in a 10:1 ratio. Try to avoid introducing bubbles. For critical applications, de-air mix under vacuum for about 20 minutes. The pot-life is 12 hours at 25°C. Pot-life may be extended by storing at 5°C. Apply to substrate. Avoid entrapping air during transfer and casting. Cure at 80°C for 4 hours or at room temperature for 36 hours.

Standard Packaging

PP2-RG03 Gelest® RG 03
100 g SpeedMixer™ kit:
220 g kit (200g RG03-A, 20g RG03-B)
1.1 kg kit (1000g RG03-A, 100g RG03-B)

Application and Reference Data

1. Goff, J. et al. *MRS Proceedings* **2014**, 1626.