

Viscosity Scale

Reference Guide



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In layman's terms, viscosity defines a fluid's resistance to flow. The higher the viscosity of a liquid, the thicker it is and the greater the resistance to flow. Temperature will affect the viscosity of most materials.

What does viscosity mean to you when selecting a mold rubber? If you are using a mold rubber with a high viscosity, there is a chance the rubber will cure with air bubbles that may then be reflected in a finished casting. If the mixed viscosity of the mold rubber you are using is higher than 15,000 cps, you may want to consider vacuum degassing the liquid mold rubber.

What does viscosity mean to you when selecting a casting resin? If you are using a casting resin with a high viscosity, there is a chance the casting will entrap air. Air bubbles may then be reflected in a finished casting. This is especially true if the resin has high viscosity and short pot life. If the mixed viscosity of the casting resin you are using is higher than 7,500 cps, you may want to consider vacuum degassing or pressure casting the resin.

Everyday Consumable Goods In Relation To General Product Viscosity In Centipoise (cps)

Water @ 70°F / 21°C	1	centipoise (cps)
Blood or Kerosene	10	centipoise (cps)
Ethylene Glycol or Anti-Freeze	15	centipoise (cps)
Motor Oil (SAE 10)	50	centipoise (cps)
Corn Oil	65	centipoise (cps)
Unfilled Rigid Urethane Resin	80 - 120	centipoise (cps)
Maple Syrup or Motor Oil (SAE 30)	150 - 200	centipoise (cps)
Castor Oil or Motor Oil (SAE 40)	250 - 500	centipoise (cps)
Glycerin or Motor Oil (SAE 60)	1,000 - 2,000	centipoise (cps)
Pourable Urethane Rubbers	1,000 - 3,000	centipoise (cps)
Honey or Corn Syrup	2,000 - 3,000	centipoise (cps)
Molasses	5,000 - 10,000	centipoise (cps)
Chocolate Syrup	10,000 - 25,000	centipoise (cps)
Silicone Rubber	14,000 - 40,000	centipoise (cps)
Ketchup or Mustard	50,000 - 70,000	centipoise (cps)
Brushable Silicone Rubber	100,000 - 150,000	centipoise (cps)
Peanut Butter or Tomato Paste	150,000 - 250,000	centipoise (cps)
Brushable Urethane Rubber	200,000 - 300,000	centipoise (cps)
Lard or Crisco Shortening	1,000,000 - 2,000,000	centipoise (cps)
Caulking Compound	5,000,000 - 10,000,000	centipoise (cps)
Window Putty	100,000,000	centipoise (cps)

These are general averages and NOT specifics, not all products fit neatly in this chart. Please check Technical Bulletins for specific mixed viscosity of products. Temperature will affect the viscosity of most materials, these estimated numbers are based on measurements at 73° F / 23° C.



Call Us Anytime With Questions About Your Application.

Toll-free: (800) 381-1733

Fax: (610) 252-6200

The new www.smooth-on.com is loaded with information about moldmaking, casting and more.