

# Rheology Basics

## Quiz For:

- (1) Rheology Variables and Useful Output
- (1.1) Rheology Definitions and Scope

Lisa R. Murray, PhD

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### Which of the following motions involve shear forces?

- (a) Painting a Wall
- (b) Hugging a Pillow
- (c) Cleaning a Countertop
- (d) Spraying hairspray
- (e) Shooting an Arrow
- (f) Stirring Soup



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Which of the following are considered “perfect solids” by practical rheologists?

- (a) Hard Plastics
- (b) Pudding
- (c) Asphalt
- (d) Metal Pieces
- (e) Glue
- (f) Aluminum Foil

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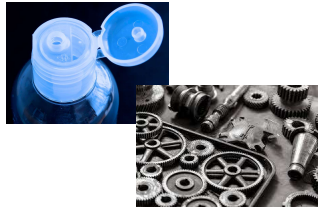
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Which of the following substances have (any) liquid-like qualities?

- (a) Soft foam
- (b) Pudding
- (c) Blood
- (d) Wet Clay
- (e) Glue
- (f) Limestone

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- (c) Blood
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- (e) Glue
- (f) Limestone ← Perfect Solid

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Which of the following are examples of internal friction?

- (a) Throwing a ball against a wall
- (b) Nanoparticles sliding against each other in a colloidal suspension
- (c) Fat molecules coalescing in melting chocolate
- (d) Gulping down a smoothie
- (e) Brushing wet hair
- (f) UV-induced bonding in a resin

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Which of the following can be tested by a viscometer?

- (a) Honey
- (b) Water
- (c) Putty
- (d) Pudding
- (e) Simple oil
- (f) Dilute solution

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Which of the following can be tested by a viscometer?

- (a) Honey
  - (b) Water ← Requires a very sensitive viscometer
  - (c) Putty
  - (d) Pudding
  - (e) Simple oil
  - (f) Dilute solution
- Assuming that they are **Newtonian**

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