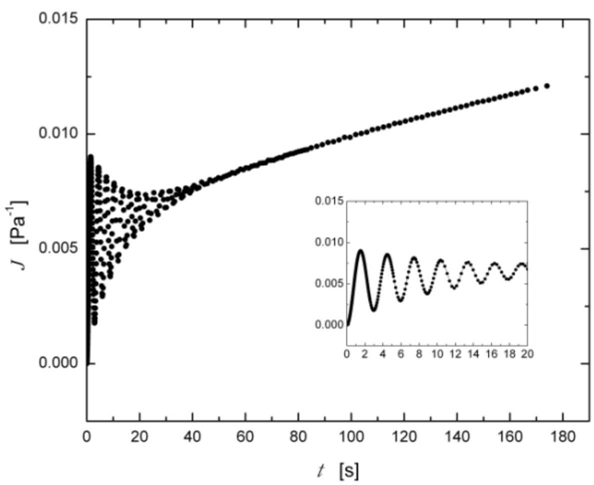

Figure 1. Creep compliance of native pedal mucus from the terrestrial snail *Helix aspera* (AR-G2, D=0.8 cm plate with sandpaper, 1000mm gap, $22^{o}C$, $t_0 = 5$ Pa < t_y).

Pedal mucus from the garden snail *Helix aspera* was also tested under creep conditions of constant applied stress. Results from one such creep test are shown in Figure 1. Pedal mucus initially shows a dominant elastic response, followed by a small amount of flow as indicated by the slope of the compliance curve. At sufficiently long times the slope of the compliance curve approaches a constant. The rate of change of compliance with time is exactly equal to the inverse of viscosity, that is $dJ(t)/dt = h^{-1}$. At steady state $dJ(t)/dt = 2.96\text{x}10^{-5}\ \text{Pa}^{-1}.\text{s}^{-1}$, which corresponds to a viscosity $h = 3.4\ \text{x}10^{4}\ \text{Pa.s}$. This matches well with the large finite viscosity below the yield stress, as shown in Figure 4 of the paper.

Figure 2 shows the creep response of Carbopol 2% and Laponite 5%. The creep compliance of native slime, from Figure 1, is included for reference. Both simulants also show an initial creep ringing due to the inertia of the instrument in series with the restoring elasticity of the sample.

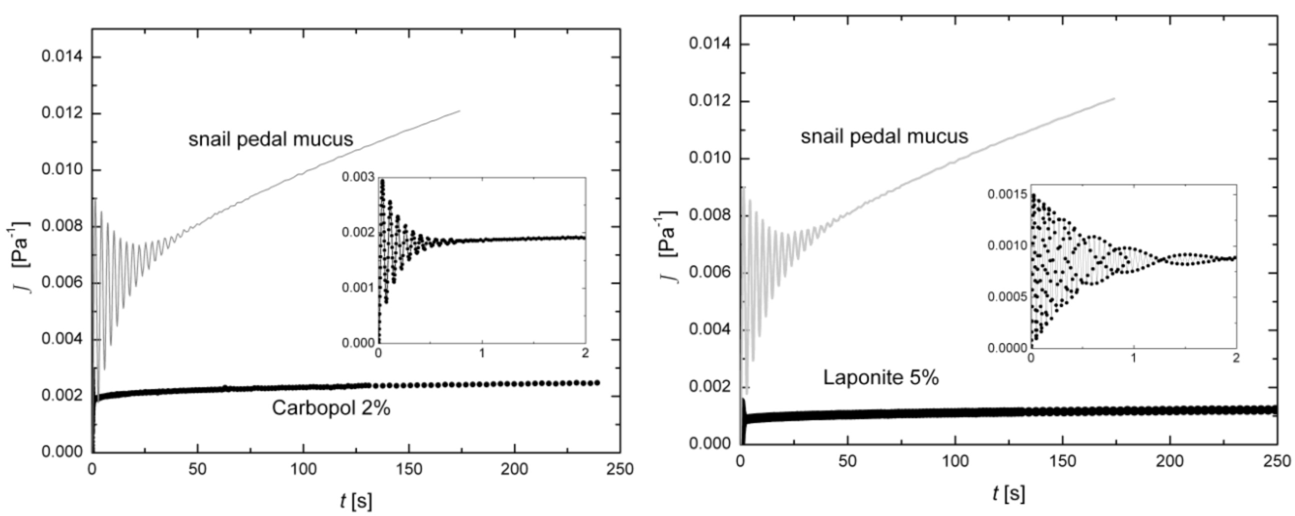

Figure 2. Creep compliance of Carbopol 2.0% ($t_0 = 5$ Pa < t_y)and Laponite 5% ($t_0 = 20$ Pa < t_y), both with AR1000, $25^{o}C$, solvent trap; D=4 cm plate with sandpaper, 1000mm gap; pedal mucus data from Figure 1.

ELECTRONIC SUPPLEMENTARY INFORMATION

Legend name	Description
Grease	Dow Corning high vacuum grease
Carbopol	Carbopol 940 in water, pH7; 0.5%, 1%, 2%, 3%, 4% (w/w)
Aloe Gel	Banana Boat, Soothing Aloe Aftersun Gel
Collagen	Type I collagen in water; 0.5%, 2%, 3.5%, 5% (w/w)
LBG	Locust bean gum in Ringer's solution; 1% (w/w)
Laponite	LaponiteRD in water, pH=10; 3%, 4%, 5%, 7% (w/w)
Cream 3	Westin's Heavenly Bath brand "hydrating cream"
Conditioner	Westin's Heavenly Bath brand conditioner
Toothpaste	Crest regular paste
Garden snail	Native pedal mucus from the common garden snail (*Helix aspera*)

Table 1: Details of personal data from Figure 3

Material details

High vacuum grease was purchased from the Dow Corning Corporation (Midland, MI). Carbopol preparation is described in the article. Aloe gel was purchased under the Banana Boat brand name, labeled as *Soothing Aloe Aftersun Gel*. The aloe gel is distributed by Sun Pharmaceuticals Corp (Delray Beach, FL). Locust bean gum was a gift from P.L. Thomas & Co., Inc. (Morristown, NJ). The collagen mixture was prepared by adding 0.25 g of microfibrillar, type I collagen isolated from bovine tendon (Integra LifeSciences, Plainsboro, NJ) to 4 ml of DI water. After mixing the solution, 1 ml of 3.0M acetic acid was injected, resulting in a mixture of 5% (w/w) collagen in 0.6M acetic acid solution. The collagen and acetic acid solution was mixed using two syringes joined with a female-female Luer-lock assembly, in which the solution was pushed from one syringe to another ten times in succession. The solution was allowed to rest for three hours in order to equilibrate. The mixture was then centrifuged for 45 minutes at 4000g to remove air bubbles. The resulting clear gel was kept at T=4C until it was needed for testing. Locust bean gum was added directly to a Ringer's solution and mixed with a magnetic stirrer. The Ringer's solution is DI water containing 0.86 mg/ml NaCl, 0.03 mg/ml KCl, and 0.033 mg/ml CaCl. Laponite preparation is described in the article. The Cream 3 and Conditioner samples are

Legend name	Description	Reference
Banana slug	Native pedal mucus from the banana slug (*Ariolimax columbianus*); yield stress value from stress overshoot tests, extrapolated to limit of zero strain-rate	[1]
Grease in oil	Dow Corning high vacuum grease in 0.1 Pa.s silicone oil; 15wt%, 25wt%	[2]
Alginate	Alginate in water; 4.4% (w/w) with Ca cations; τ_y extrapolated from data	[3]
Carageenan	Grindsted Carageenan in water; 2%, 3%	[4]
Xanthan	Xanthan in water; 1%, 2%, 3%	[4]
Dextran	Dextran in water; 250mg/ml; 0mM $CaCl_2$, 1.9mM $CaCl_2$;	[5]
HPG3	hydrophobically modified (hydroxypropyl) guar, called HPG3, in water; 1.5wt%; $\eta \approx 10^2$ Pa.s for $\tau < \tau_y$	[6]
Blend	Carbopol 940 : sodium alginate : guar gum in artificial tear fluid; 0.5:0.2:0.2, 0.6:0.3:0.3; unknown concentration, fit to Bingham model	[7]
Hair gel	Miss Helen blue hair gel	[8]

Table 2: Details of polymeric gels from Figure 3

made available by Westin hotels under the Heavenly Bath brand name. Toothpaste was purchased from a local store, sold by the Crest Co., labeled as *Regular paste - tartar control*. The toothpaste is opaque, and light blue in color. Pedal mucus collection is described in the article.

Legend name	Description	Reference
Bentonite	Ca-bentonite and Na-bentonite in water; 2% (w/w), τ_y extrapolated from data	[9]
Cloisite	Exfoliated montmorillonite clay (Cloisite 20A) in xylene; 1% - 10% (w/w),	[10]
Kaolin	Kaolin (plate-like particles) in water; 51% (w/w)	[11]
TiO_2	A-HR TiO_2 (sphere-like particles, 0.5μm diameter) in water, pH=2.4; 50% (w/w)	[11]

Table 3: Details of particulate gels from Figure 3

Legend name	Description	Reference
Cream 1	Commercially available skin creme (brand not reported)	[12]
Cream 2	Prepared lamellar gel-structured “cream” containing emulsifiers, 2% triethanolamine, and water; 6.5% and 13% emulsifiers	[13]
PB creamy	Commercially available “smooth” peanut butter (brand not reported), data fit to Bingham model	[14]
PB 100% nuts	Commercially available “100% peanuts” peanut butter (same brand as above, but not reported), data fit to Bingham model	[14]
Mayo 1	Factory sample of mayonnaise, fit to Herschel-Bulkley model	[13]
Mayo 2a	Apparent rheology of mayonnaise prepared with various xanthan gum concentrations; 50% (w/w) oil; 0.5%, 1.0%, 1.5% (w/w) xanthan gum	[15]
Mayo 2b	Same physical sample as Mayo 2a but with data corrected for slip	[15]
Mayo 2c	Slip corrected rheology of mayonnaise prepared with various oil concentrations, no xanthan gum; 75%, 80%, 85% (w/w) oil	[15]
Foam	Commercial shaving foam (Gilette Foamy, regular), tested with rough surface, fit to Herschel-Bulkley model	[8]

Table 4: Details of emulsions, wet foams, and composites from Figure 3

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