|  |  |  |
| --- | --- | --- |
| CONSTANTS |  |  |
| Time when strain becomes constant (sec) |  | 10 sec |
| Strain rate (aka rate of strain increase) until (sec-1) |  | 0.01 |
| Poisson’s ratio (unitless) |  | 0.24 |
| Young’s modulus (kPa) |  | 19 kPa |
|  |  |  |
| FITTED PARAMETERS |  |  |
| Viscoelastic parameter |  | 2 |
| Viscoelastic parameter |  | (0.001, 10) |
| Poisson’s ratio (unitless) |  | 0.75 |
| Young’s modulus (kPa) |  | 8.5 kPa |
| Gel diffusion time (sec) | (equation only provided for reference) | 40.62 sec |
|  |  |  |
| INDEPENDENT VARIABLES |  |  |
| Time-space (unitless) |  |  |
| Laplace-space (unitless) |  |  |
|  |  |  |

**All other variables should be defined from the above.**

Note- **S** or Sij is shorthand for the matrix of all the S’s. Thus, a function of **S** is a function of actually 9 S parameters (plus any other additional parameters).

## EQUATIONS

This is actually the ultimate equation presented first. All the other equations are plugged into this equation.

Divided by to make equation formatted better

(unitless)



kPa-1 kPa-1 kPa-1 kPa-1



kPa-2 kPa-2 kPa-2 kPa kPa (unitless)

kPa



kPa (unitless)

(unitless)

Definition of for reference is: (below equation not actually used)

## Reference Laplace Transform Table

