

1. Shear

Startup	$\eta^+(t, \dot{\gamma}_0)$	$\frac{\eta_0 (1 + \lambda_1 \lambda_2 \dot{\gamma}_0^2)}{1 + \lambda_1^2 \dot{\gamma}_0^2} + \frac{\eta_0 (1 - \lambda_2/\lambda_1)}{1 + \lambda_1^2 \dot{\gamma}_0^2} \mathcal{A}$ $\mathcal{A} = (\lambda_1 \dot{\gamma}_0 \sin \dot{\gamma}_0 t - \cos \dot{\gamma}_0 t) e^{-t/\lambda_1}$
	$\Psi_1^+(t, \dot{\gamma}_0)$	$\frac{2\eta_0 (\lambda_1 - \lambda_2)}{1 + \lambda_1^2 \dot{\gamma}_0^2} - \frac{2\eta_0 \lambda_1 (1 - \lambda_2/\lambda_1)}{1 + \lambda_1^2 \dot{\gamma}_0^2} \mathcal{B}$ $\mathcal{B} = \left(\frac{1}{\lambda_1 \dot{\gamma}_0} \sin \dot{\gamma}_0 t + \cos \dot{\gamma}_0 t \right) e^{-t/\lambda_1}$
	$\Psi_2^+(t, \dot{\gamma}_0)$	$-\frac{1}{2} \Psi_1^+$
Steady	$\eta(\dot{\gamma})$	$\frac{\eta_0 (1 + \lambda_1 \lambda_2 \dot{\gamma}^2)}{1 + \lambda_1^2 \dot{\gamma}^2}$
	$\Psi_1(\dot{\gamma})$	$\frac{2\eta_0 (\lambda_1 - \lambda_2)}{1 + \lambda_1^2 \dot{\gamma}^2}$
	$\Psi_2(\dot{\gamma})$	$\frac{-\eta_0 (\lambda_1 - \lambda_2)}{1 + \lambda_1^2 \dot{\gamma}^2} = -\frac{1}{2} \Psi_1$
Cessation	$\eta^-(t, \dot{\gamma}_0)$	$\frac{\eta_0 (1 - \lambda_2/\lambda_1)}{1 + \lambda_1^2 \dot{\gamma}_0^2} e^{-t/\lambda_1}$
	$\Psi_1^-(t, \dot{\gamma}_0)$	$\frac{2\eta_0 \lambda_1 (1 - \lambda_2/\lambda_1)}{1 + \lambda_1^2 \dot{\gamma}_0^2} e^{-t/\lambda_1}$
	$\Psi_2^-(t, \dot{\gamma}_0)$	$-\frac{1}{2} \Psi_1^-$
SAOS	$\eta'(\omega) = \frac{G''}{\omega}$	$\frac{\eta_0 (1 + \lambda_1 \lambda_2 \omega^2)}{1 + \lambda_1^2 \omega^2} = \eta(\dot{\gamma}) _{\dot{\gamma}=\omega}$
	$\frac{\eta''(\omega)}{\omega} = \frac{G'}{\omega^2}$	$\frac{\eta_0 (\lambda_1 - \lambda_2)}{1 + \lambda_1^2 \omega^2} = \frac{1}{2} \Psi_1(\dot{\gamma}) _{\dot{\gamma}=\omega}$

2. Extension

Steady

Uniaxial ($b = 0, \dot{\epsilon}_0 > 0$)	$\bar{\eta}(\dot{\epsilon}_0)$	$3\eta_0$
or biaxial ($b = 0, \dot{\epsilon}_0 < 0$)	$\bar{\eta}_B(t, \dot{\epsilon}_0)$	
Planar ($b = 1, \dot{\epsilon}_0 > 0$)		

Table 1: Predictions of Corotational Jeffreys Model in Shear and Extensional Flows (R. B. Bird, R. A. Armstrong, and O. Hassager, Dynamics of Polymeric Fluids, Volume 1: Fluid Mechanics, Wiley 1977).