STEP CHANGE

Shear rate

Time

Shear stress

Breakdown
Equilibrium levels of stress
Rebuilding

Time
Immediately: isostructure

Fast process: deagglomeration

Slow process: coarsening of fragments, spheroidization

Immediately: isostructure

Fast process: agglomeration

Slow process: coarsening of agglomerate, increase of rigidity
Half-Peak width = 5mm  
(breakdown of skeletal structure)

Peak stress can be calculated from the peak load and the flow stress from the minimum load.

Peak Load ($L_p$)
Initial Contact
Minimum Load ($L_m$)  
(start of flow of material)
Newtonian Fluid (1 Pas)

Thixotropic Fluid

Obstacle

Sn15%Pb

t=0.05s  t=0.08s  t=0.11s
Obstacle 30mm diam.  Obstacle 20 mm diam.

Reflection from glass

1 m per sec.