Dispersant AK 2240

Dispersant for Carbon Black

Formulation

AK2240	6-8 wt% “as is”
Propylene glycol	3.6 wt%
Carbon black	39-41 wt%
Water	to 100 wt%
pH	8-9

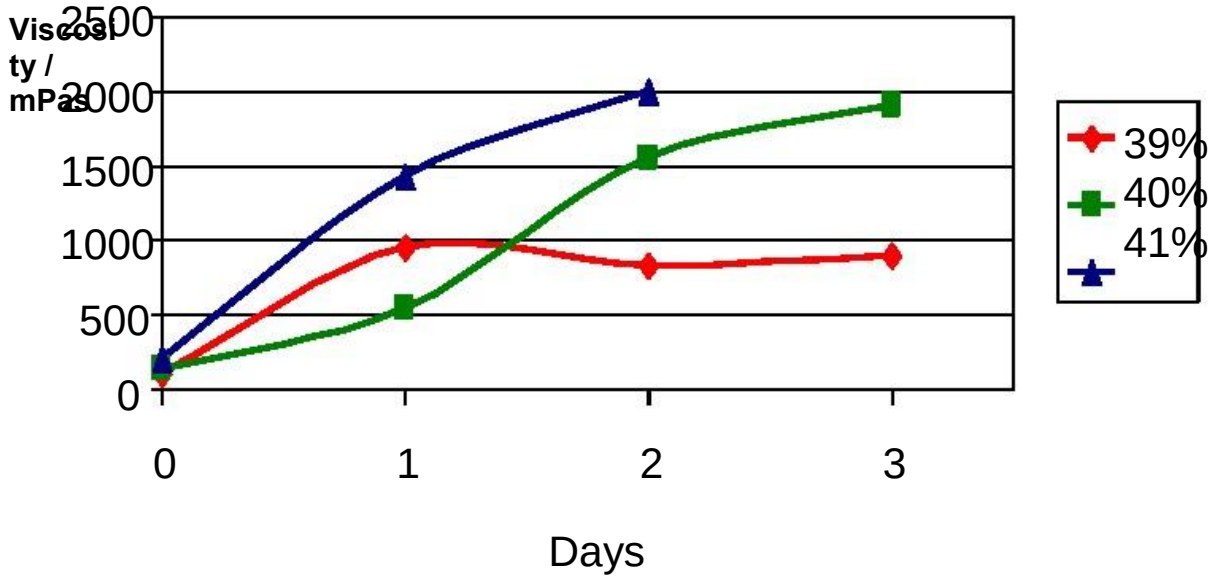
- (the carbon black used had a high surface area)

Procedure

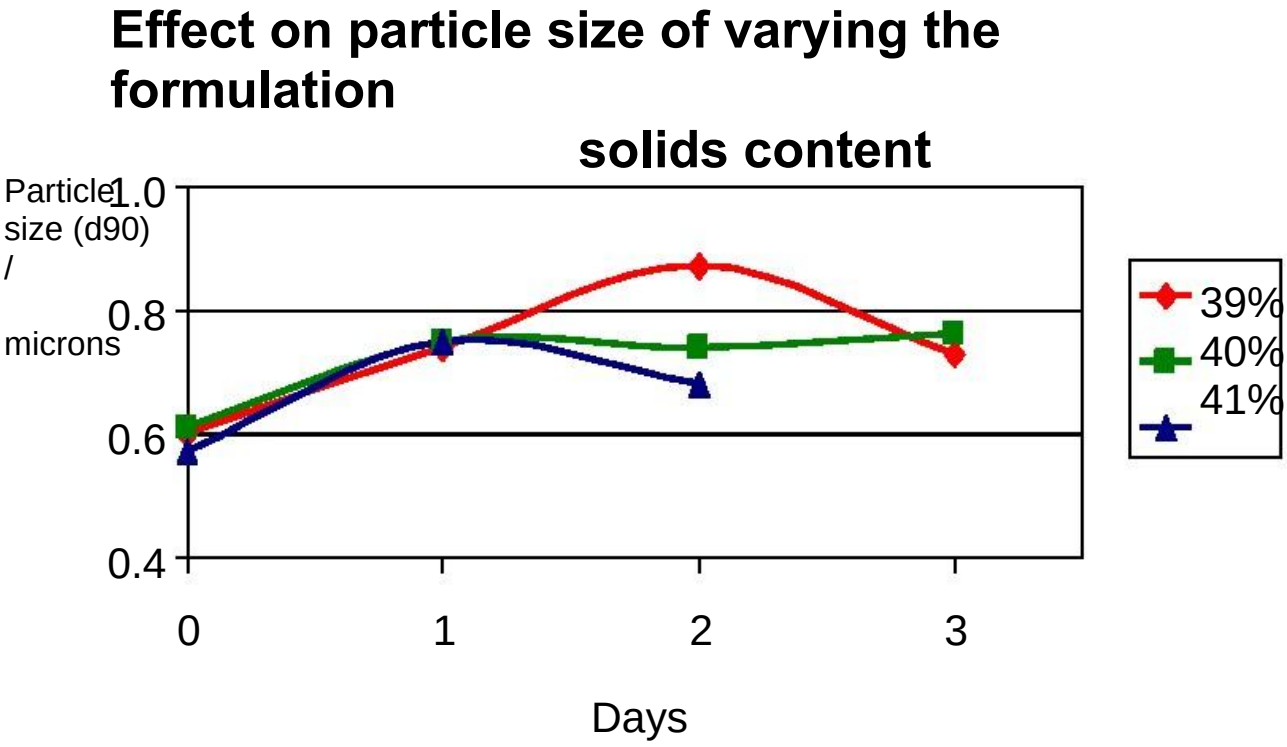
- Disperse formulation in high shear mixer
  - until required viscosity achieved
- Grind in bead mill
- Measure viscosity over time
- Measure particle size over time
- Measure size distribution over time

AK2240 at 8% dose

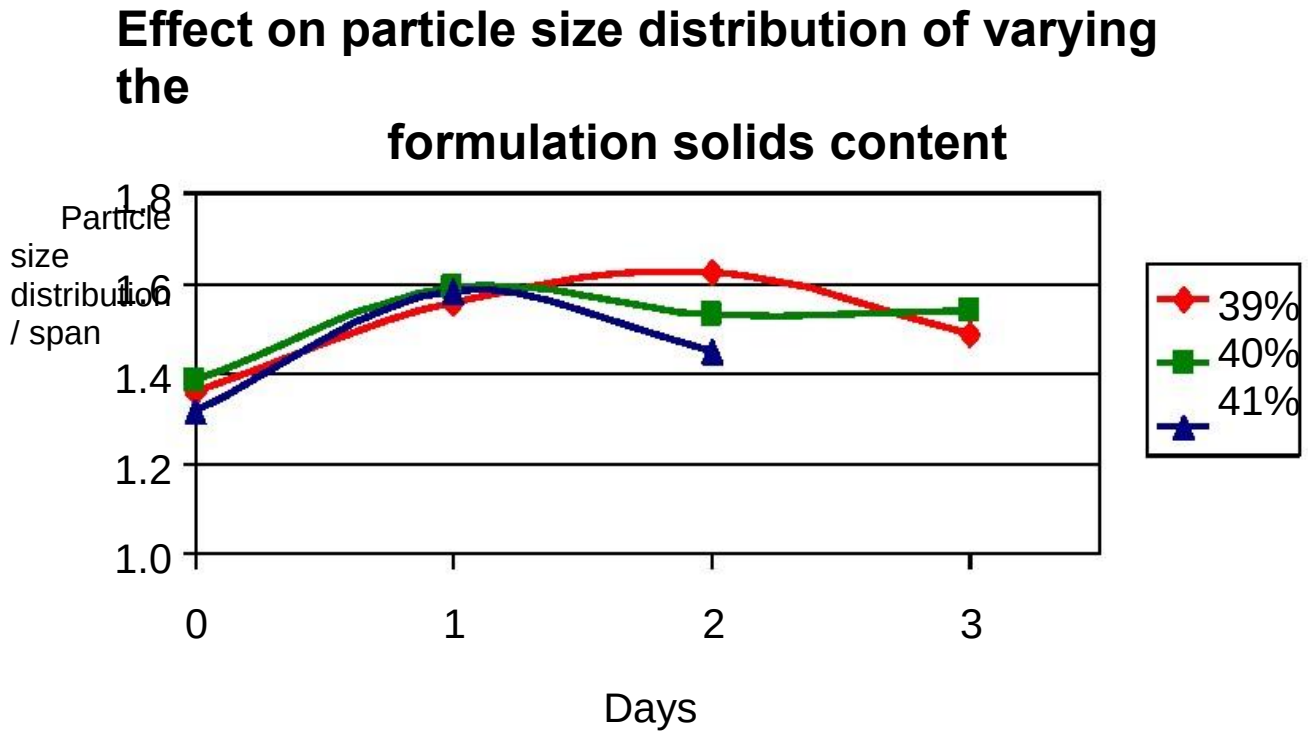
Effect on slurry viscosity of varying the formulation solids content



AK2240 at 8% dose

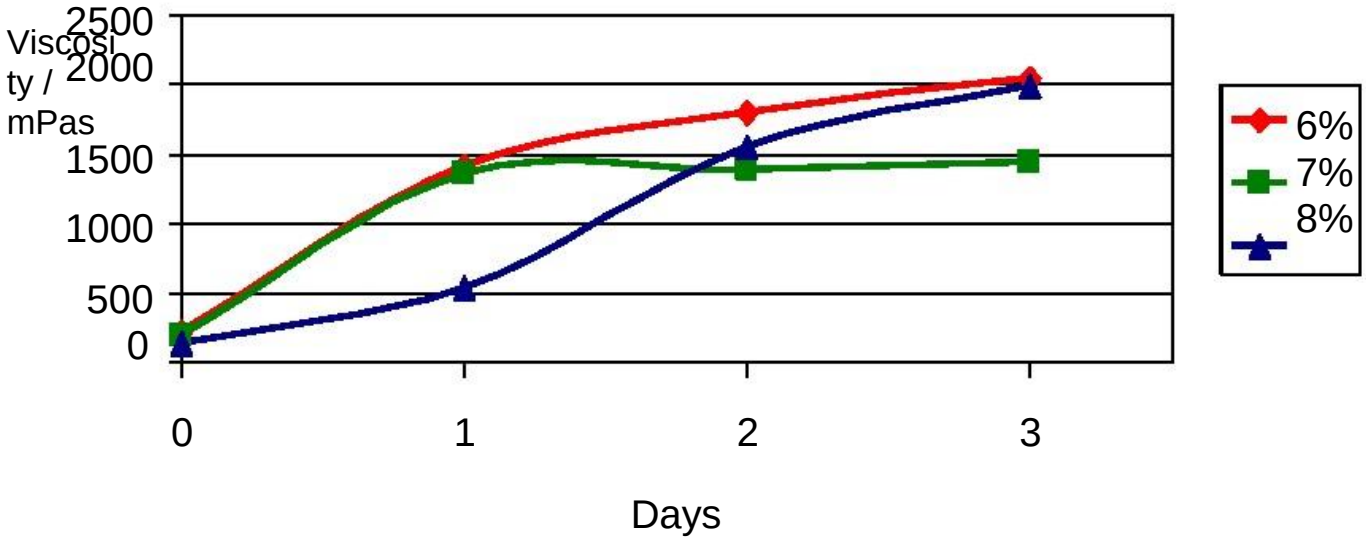


AK2240 at 8% dose



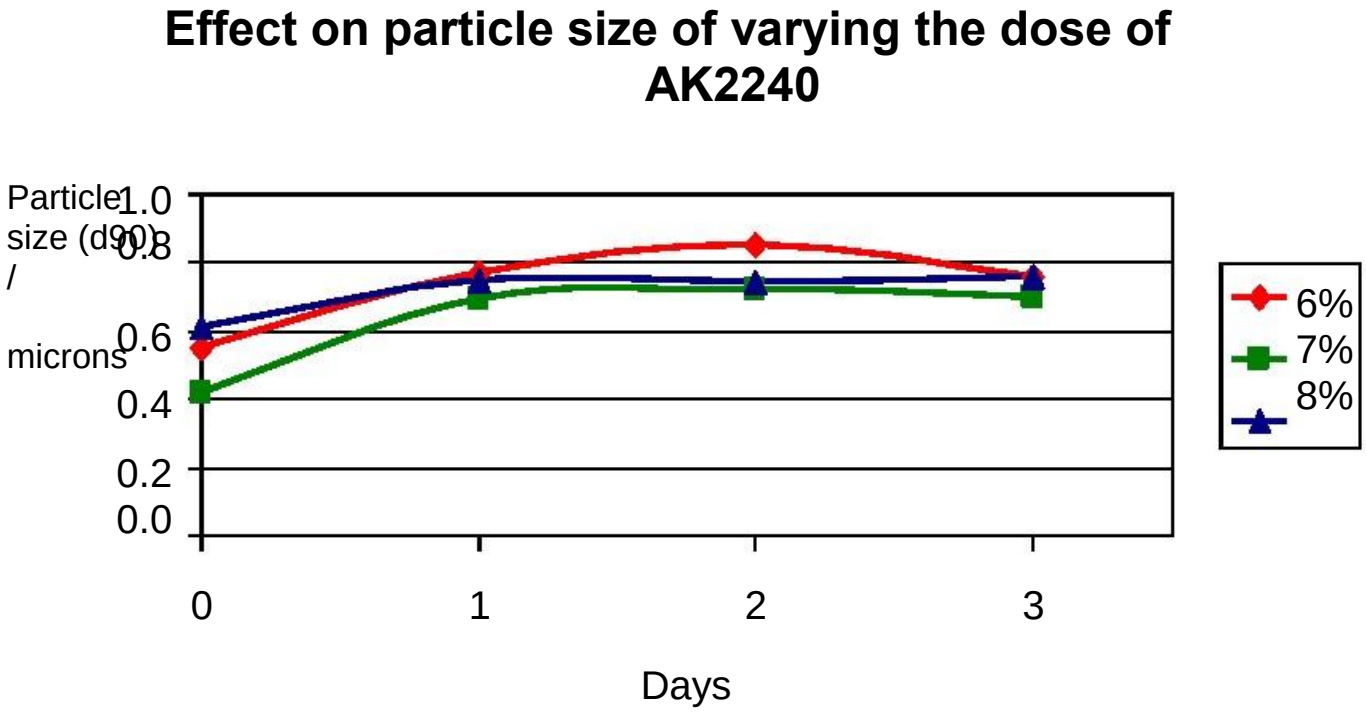
AK2240 Dose Performance

Effect on slurry viscosity of varying the dose of AK2240



40% formulation solids content

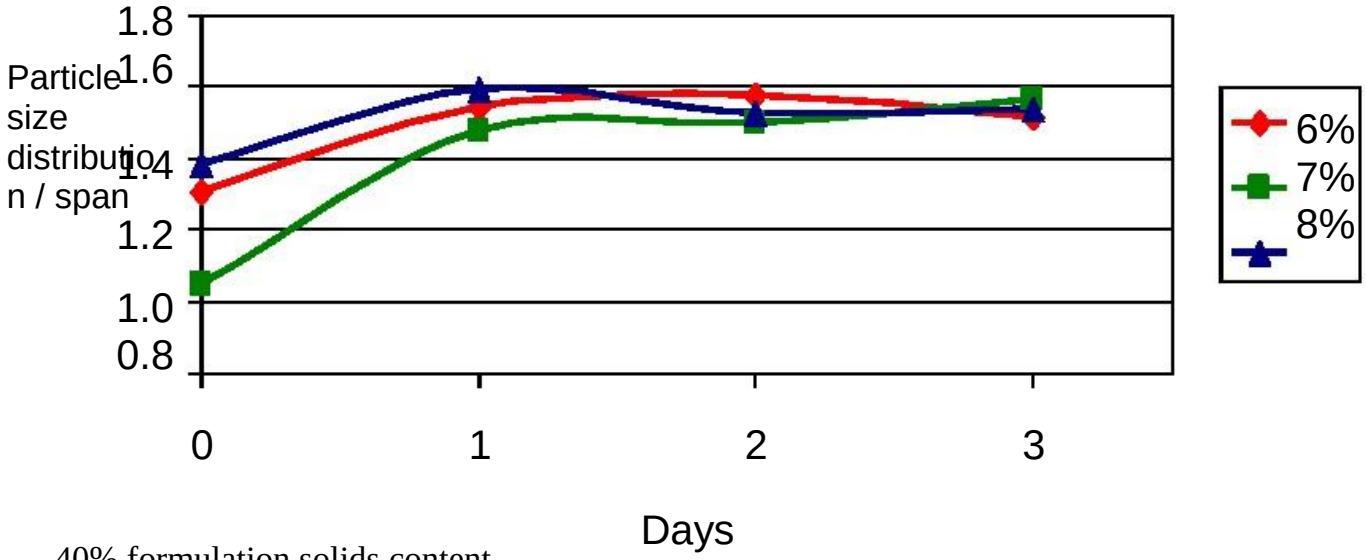
AK2240 Dose Performance



40% formulation solids content

AK2240 Dose Performance

Effect on particle size distribution of varying the dose of AK2240



40% formulation solids content

Conclusions

- AK2240 is an effective dispersant
- No wetting or anti-foam agents needed
- Effective above 40% formulation solids
- Gives low viscosity slurry
- Effective at low dose rates
- Gives stable formulation

  - after one month, viscosity, particle size and distribution values are equivalent to three day figures