## **Comments on Silica Fume**

P65 Effects of physical and chemical treatments of silica fume on the strength and microstructures of mortar

- Some researchers point out that silica fume itself may be in high agglomeration.
- It is very important to disperse silica fume in concrete effectively (by physical or chemical)
- Ultrasonic homogenizer, ball mill or superplasticizer
- Table 1: 6 kinds: Their surface areas by BET are large and not much difference.
- Fig.1 : However, their size distributions are very differ.

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- Fig.1 : However, their size distributions are very differ.
- For undensified silica fume the plasticizers are useful to improve workability and strength.
  For denified silica fume, physical treatment are useful.

## **Effects on Durability p102**

Fig.13 : Effect on Alkali-silica reaction
Fig.14 : Effect on Sulfate Attack resistance
Fig.15 : Drying shrinkage

