

Particle Characterization: Module 6, Lecture 15

1. What is general dependence of particle adhesion force on diameter, and % RH?
2. List some typical particle adhesion forces. Identify ones that are process-specific.
3. What parameters do system Hamaker constant and F_{vdw} depend on?
4. For a spherical particle interacting with a planar surface, how does F_{vdw} depend on d_p and Z_0 ?
5. For a cylindrical particle interacting with a planar surface, how does F_{vdw} depend on d_p and Z_0 ?
6. For a one planar surface interacting with another, how does F_{vdw} depend on d_p and Z_0 ?
7. How is F_{vdw} affected by intervening fluid?
8. How is F_{vdw} affected material type?
9. How is F_{vdw} affected by surface roughness?
10. How is F_{vdw} affected by time?