Sphericity is a measure of how closely the shape of an object resembles that of a perfect sphere. It is defined as the ratio of the surface area of a sphere with the same volume as the object to the object's surface area.

$$ \text{Sphericity} = \frac{A_s}{A_o} $$

where:

- As is the surface area of a sphere with the same volume as the object
- Ao is the surface area of the object

A perfect sphere has a sphericity of 1, while any other shape will have a sphericity less than 1.

Sphericity is an important property of particles in many different industries, including mining, food processing, and pharmaceuticals. It can affect the flowability, packing density, and other properties of particles. For example, spherical particles are more likely to flow freely than non-spherical particles, and they can pack more densely together.

Sphericity can be measured using a variety of different methods, including image analysis, light scattering, and laser diffraction.

Here are some examples of sphericity for different shapes:

- Sphere: 1
- Cube: 0.806
- Cylinder: 0.785
- Tetrahedron: 0.707
- Flake: 0.5

Sphericity is an important property to consider when designing and optimizing processes that involve the handling or processing of particles.