

At SETSCO,

**Particle Size Analysis
(PSA) and Particle Imaging
work together to
provide a more
complete picture
of your material.**

Not All Particles Are Created Equal



SWIPE >>>



Why Particle Characterization Matters

Particle characteristics influence -

- ✓ Flowability and handling properties
- ✓ Packing density and compaction behavior
- ✓ Dissolution and reaction rates
- ✓ Surface area and material performance
- ✓ Product appearance and consistency
- ✓ Manufacturing efficiency and process control

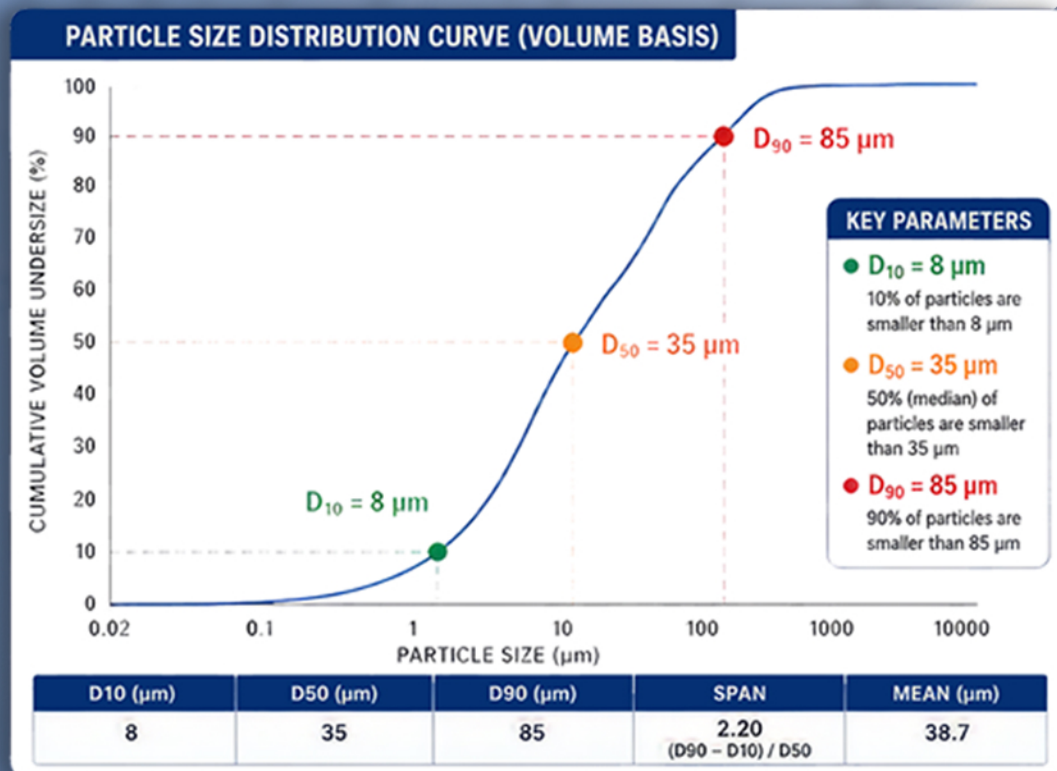


SWIPE >>>



Particle Size Analysis (PSA)

Using Laser Diffraction (ISO 13320), particle size distribution can be measured rapidly across a wide size range.



SWIPE >>>



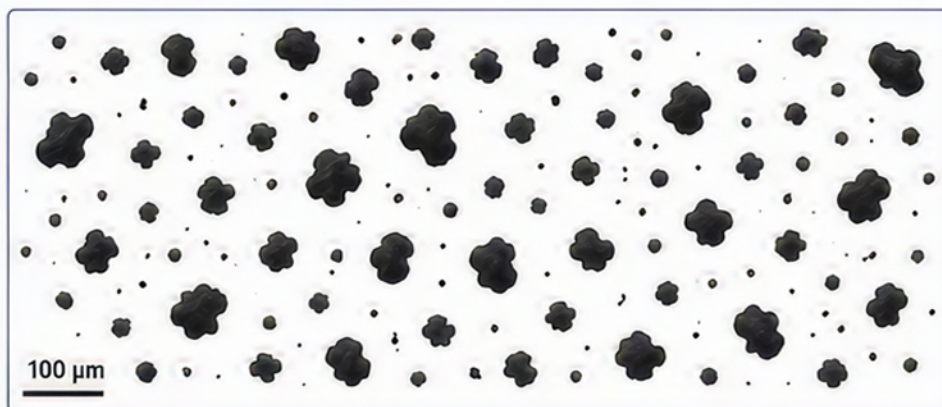
Particle Imaging

Revealing Insights Beyond the Numbers

Particle Imaging Analysis allows direct visualization of individual particles, providing valuable information beyond size measurements.

PARTICLE SIZE IMAGING & MORPHOLOGY

RAW PARTICLE IMAGE



PARTICLE MORPHOLOGY PARAMETERS



ECD
Equivalent
Circular
Diameter



ASPECT RATIO
Length /
Width



CIRCULARITY
 $4\pi(\text{Area}) / \text{Perimeter}^2$



ELONGATION
Measure of
Particle
Elongation



**FIBER
DETECTION**
Length / Width
> Threshold



**AGGLOMERATE
IDENTIFICATION**
Detects & measures
particle clusters

SWIPE >>>



Applications Across Industries



**Construction
Materials & Cement**



**Chemicals &
Specialty Powders**



**Paints, Pigments
& Coatings**



**Polymers &
Additives**



**Minerals &
Fillers**



**Environmental
Samples**



Pharmaceuticals



Fine Powders

Particle Size Analysis

- Wide measurement range: 0.02–3500 μm
- Accurate particle size profiling (D10, D50, D90)
- Comprehensive distribution analysis
- Highly repeatable results
- Fast, reliable data for quality control

Particle Imaging

- Visualise particles beyond size alone
- High-resolution imaging
- Advanced shape & morphology analysis
- Agglomerate identification
- Real-time insights
- Clear visual reporting with image galleries

At SETSCO, our particle characterization capabilities support Quality Control, R&D, Manufacturing Optimization and Failure Investigation across a wide range of industries.

Contact Us Today!



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