

Measured parameter ^a	Description
Area ^{b,c} (nm ²)	Projection area
Convex area ^b (nm ²)	The area of the convex hull (envelope) bounding the measured object.
Rectangle max (nm ²)	The area of the biggest rectangle whose sides consist of tangents to the measured object borders.
Rectangle mean (nm ²)	The area of the mean rectangle whose sides consist of tangents to the measured object borders.
Rectangle min ^d (nm ²)	The area of the smallest rectangle whose sides consist of tangents to the measured object borders.
ECD ^e (nm)	The equivalence refers to the area of the measured object. The ECD is the diameter of a circle that has an area equal to the area of the measured object.
Feret max ^c (nm)	The maximum distance of parallel tangents at opposing measured object borders.
Feret mean ^f (nm)	The mean distance of parallel tangents at opposing measured object borders.
Feret min ^c (nm)	The minimum distance of parallel tangents at opposing measured object borders.
Radius of inner circle (nm)	Radius of the maximal circle inside the measured object.
Central distance max (nm)	The maximum distance between the center and the border of a measured object.
Central distance mean (nm)	The mean distance between the center and the border of a measured object.
Central distance min (nm)	The minimum distance between the center and the border of a measured object.
Diameter max (nm)	The maximum diameter of a measured object (for angles in the range 0° through 179° with step width 1°).
Diameter mean (nm)	The mean diameter of a measured object (for angles in the range 0° through 179° with step width 1°).
Diameter min (nm)	The minimum diameter of a measured object (for angles in the range 0° through 179° with step width 1°).
Convex perimeter ^b (nm)	The length of the perimeter of the convex hull (envelope) bounding the particle.
Perimeter ^b (nm)	The sum of the pixel distances along the closed boundary.
Aspect Ratio ^g	The maximum ratio of width and height of a bounding rectangle for the measured object.
Convexity ^h	The fraction of the measured object's area and the area of its convex hull.
Elongation	The elongation of the measured object can be considered as lack of roundness. It results from the sphericity.
Shape factor ⁱ	The shape factor provides information about the "roundness" of the measured object. For a spherical measured object the shape factor is 1; for all other measured objects it is smaller than 1.
Sphericity	Describes the sphericity or 'roundness' of the measured object by using central moments.

a These parameters are used in the iTEM software and are described in the iTEM help files

b As described in ISO 9276-6:2008

c As described in ISO 13322-1:2004

d Feret box area^b

e Area equivalent diameter^c

f Angle-average feret diameter

g Shape factor^{b,c}

h Solidity^b

i Form Factor^b