AFM Probe Specifications:
Coating
none
Additional Info
AFM probes of the 3XC series feature three different AFM cantilevers for various measurement modes:
500DC - Contact mode AFM cantilever
240AC - Soft tapping mode AFM cantilever for imaging soft samples
200AC - Standard tapping mode AFM cantilever
The tetrahedral AFM tips are located precisely at the free ends of the AFM cantilevers. This allows the AFM tips to be positioned accurately over the area of interest on the sample surface.
The uncoated AFM probe offers sharp AFM tip apexes, chemical inertness and high AFM cantilever Quality factors.

## AFM Tip:

| Shape | Height | Setback | Radius | Half Cone Angle |
|---|---|---|---|---|
| Optimized Positioning | 14 µm (12 - 16 µm)* | 0 µm | < 7 nm | 0° front, 35° back, <9° side |

* typical values

## AFM Cantilever:

| Cantilever | Shape | Force Const. | Res. Freq. | Lenght | Width | Thickness |
|---|---|---|---|---|---|---|
| **Contact mode AFM cantilever** | Beam | 0.3 N/m (0.1 - 0.6 N/m)* | 17 kHz (11 - 22 kHz)* | 500 µm (1 - 510µm)* | 30 µm (28 - 32µm)* | 3µm (2.5 - 3.5 µm)* |
| **Standard tapping mode AFM cantilever** | Beam | 9 N/m (2.8 - 21 N/m)* | 150 kHz (100 - 200 kHz)* | 175 µm (1 - 185µm)* | 40 µm (38 - 42µm)* | 3µm (2.5 - 3.5 µm)* |
| **Soft tapping mode AFM cantilever** | Beam | 2.5 N/m (0.75 - 5.3 N/m)* | 75 kHz (50 - 100 kHz)* | 240 µm (1 - 250µm)* | 30 µm (28 - 32µm)* | 3µm (2.5 - 3.5 µm)* |

* typical values