

The following data details the bouncing of water droplets on various surfaces, 8µL droplets were dropped from a height of 20 mm (dispensing tip to surface).

*'Surface average' data provides water contact angle and water bouncing averages on each surface type (10 spots for each surface), 'spot testing' uses water droplets bouncing on a point with known water contact angle)

Surface Averages				
CA (°)	σ	No. Bounces	Material	Roughness Type
5	1.2	0	UV-Irradiated Titania	Flat
30	2	0	Non-Irradiated Titania	Flat
45	2.7	0	Glass	Flat
71	3.3	0	Heat Treated Glass	Flat
90	1.7	0	Copper Metal	Flat
95	1.5	0	Flat Sylgard 184 Elastomer	Flat
99	1.6	0	Flat Dyneon FC-2120 Fluoroelastomer	Flat
110	2.1	0	AACVD Coating of Dyneon FC-2120 Fluoroelastomer on Glass	Rounded
129	2.8	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
130	3	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
152	3.3	1.2	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
156	2.7	2.5	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
156	3.6	2.5	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
156	2.3	3	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
157	3.2	4	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
161	2.8	5	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
165	2.7	7	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
169	1	9	AACVD Coating of Sylgard 184 Elastomer on Elastomer Substrate	Rounded
171	1.1	12	Thiol-functionalised Copper Hydroxide Nanoneedles	Sharp (Needles)
172	1.3	12	Fluorinatedthiol-functionalised Copper Hydroxide Nanoneedles	Sharp (Needles)
175	1.3	12	Trimethylsiloxane Functionalised Silica Microparticles Deposited by Hybrid CVD	Rounded

Spot Testing			
CA (°)	No. Bounces	Material	Roughness Type
120.3	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
120.8	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
121.5	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
121.9	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
123.2	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
123.3	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
125.7	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
127.3	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
127.4	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
127.6	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
128.8	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
128.8	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
130.7	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
132.4	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
132.6	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
133.6	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
134.7	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
140.2	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
142.0	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
142.3	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
144.0	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
147.4	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
148.5	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
149.6	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
149.7	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
150.4	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
150.8	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.1	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.2	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.3	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.4	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.4	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.4	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.4	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.6	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.7	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.7	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.7	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.8	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.8	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.9	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.9	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
151.9	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
152.0	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
152.1	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
152.1	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
152.1	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
152.2	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
152.3	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
152.4	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
152.5	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded

152.8	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
152.8	2	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
153.0	2	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
153.1	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
153.2	0	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
153.3	2	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
153.4	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
153.7	2	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
153.8	2	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
153.8	2	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
153.9	2	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
153.9	2	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
154.0	2	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
154.6	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
154.7	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
155.2	1	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
155.8	2	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
156.0	3	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
156.2	4	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
156.3	5	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded
156.7	4	AACVD Coating of Sylgard 184 Elastomer on Glass	Rounded

PTFE - Spot Testing

CA (°)	No. Bounces	Material	Roughness Type
105	0	Flat Polytetrafluoroethylene Substrate	Flat
125.4	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
128.3	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
139.6	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
143.2	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
146.8	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
149.7	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
151.4	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
152.2	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
153.1	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
153.1	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
154.3	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
155.7	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
156	0	Mechanically Roughened Polytetrafluoroethylene	Sharp
156.4	1	Mechanically Roughened Polytetrafluoroethylene	Sharp
157	1	Mechanically Roughened Polytetrafluoroethylene	Sharp
157.1	2	Mechanically Roughened Polytetrafluoroethylene	Sharp
157.4	1	Mechanically Roughened Polytetrafluoroethylene	Sharp
157.9	2	Mechanically Roughened Polytetrafluoroethylene	Sharp
158.3	2	Mechanically Roughened Polytetrafluoroethylene	Sharp