

## Easy-clean device surfaces with 3M<sup>™</sup> Novec<sup>™</sup> Electronic Grade Coatings

Your devices need extra protection to help keep them looking good and functioning properly – and 3M has the solution. Get easy-clean, anti-smudge surfaces with these 3M<sup>™</sup> Novec<sup>™</sup> Electronics Grade Coatings. These fluoropolymer silanes are diluted in a segregated hydrofluoroether solvent, providing clear, low viscosity, low surface tension coating solutions. They form thin, optically transparent coatings, improving the lubricious feel of a variety of glass and glass-like surfaces used in touchscreens and other displays.

Properties	Products	
	1720	2202
Polymer	Fluoropolymer silane	Fluoropolymer silane
Solvent	3M™ Novec™ 7100 Engineered Fluids	3M™ Novec™ 7200 Engineered Fluids
Solids Concentration (w/w)	0.1%	0.2%
Recommended Application Method <sup>1</sup>	Dip	Spray or Dip
Typical Thickness (nm)	< 10	< 10
Dry Time (minutes)	< 2	< 2
Thermal Cure Time & Temperature <sup>2</sup>	15 minutes at 135°C	60 minutes at 185°C
Relative Difference	More lubricious	More abrasion resistant
Contact Angles <sup>3</sup>	> 110° (water) > 60° (hexadecane)	> 110° (water) > 60° (hexadecane)
Viscosity (cP) @ 25°C	0.62	0.61
Safety & Sustainability	Low in toxicity Non-ozone depleting Low GWP Non-flammable VOC exempt⁴ RoHS compliant	Low in toxicity Non-ozone depleting Low GWP Non-flammable VOC exempt⁴ RoHS compliant

Not for specification purposes. All values @ 25°C unless otherwise specified.

<sup>1</sup>Novec coatings can be applied using spray, dip or syringe methods. The methods listed are often preferred. For spray application, 3M recommends using engineered controls or personal protective equipment (PPE) to minimize worker exposure.

<sup>2</sup> Preferred conditions. For other processing conditions, contact your 3M technical representative.

<sup>3</sup> Static contact angle on glass substrate. Measured contact angles can vary based on the type of surface, surface roughness and the application method.

<sup>4</sup> VOC exempt per the U.S. EPA. The U.S. EPA defines a VOC as "any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate, which participates in atmospheric photochemical reactions."

Contact your 3M technical representative for more information on other application, thickness and curing options.

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## **Electronics Materials Solutions Division**

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