



Novec™ EGC-1720

Electronic Coating

Preliminary
Product
Information

Introduction

3M™ Novec™ EGC-1720 Electronic Coating is a clear, low viscosity solution of a fluorosilane polymer carried in a hydrofluoroether solvent. This material covalently bonds to glass and metal oxide layers, forming an effective anti-smudge coating on anti-reflective surfaces. As such, the product can be used in a variety of electronics applications, such as anti-reflective (AR) flat panel displays; various electronic components; pellicles; MEMS; semiconductor chips and components; fiber optics; cellular phone components; and other sensitive materials.

Novec EGC-1720 coating dries to a thin (50-100Å) transparent film with excellent anti-wetting, anti-stiction and anti-migration properties. The solvent component is nonflammable, low in toxicity and provides an acceptable environmental profile for today's demanding electronic applications. The product contains no volatile organic compounds (VOCs).

Material Description

Not for specification purposes

Properties	Novec EGC-1720 Coating
Appearance	Clear, colorless to light-colored liquid solution
Solids	0.1%

Typical Physical Properties

All values determined at 25°C unless otherwise specified

Not for specification purposes

Properties	Novec EGC-1720 Coating
Contact Angle w/ water	105°
Specific Gravity	1.5
Solvent	3M™ Novec™ Engineered Fluid HFE-7100
Boiling Point of Solvent	61° C
Flash Point	None
Surface Energy of Dry Film	15 dynes/cm
Coating Thickness (dip coated)	50 - 100 Angstroms
Refractive Index of Dry Film	1.34
Solvent Solubility in Water	<12 ppm

3M™ Novec™ EGC-1720 Electronic Coating Product Safety & Handling

Before using this product, please read the current product Material Safety Data Sheet (available through your 3M sales or technical representative) and the precautions and directions for use on the product package. Follow all applicable precautions and directions.

Environmental Properties and Exposure Guidelines

Properties	Novec EGC-1720 Coating ¹
Ozone Depletion Potential	0.00
Global Warming Potential ²	320
Atmospheric Lifetime (years)	4.1
Hazardous Air Pollutant	No
VOC	No
Exposure Limit, ppm (8 hr. time-weighted avg.)	750
Exposure Ceiling, ppm	None
Acute LC50, ppm	>100,000
Ocular Irritant	No
Dermal Irritant	No
Flash Point (open or closed cup)	None

¹ 3M™ Novec™ Engineered Fluid HFE-7100 is the solvent carrier for EGC-1720 coating

² 100 year Integration Time Horizon

Resources

For additional technical information on Novec EGC-1720 Electronic Coating, call 3M Electronic Materials at one of the numbers below. For other 3M global offices, and information on additional 3M products, visit our web site at www.3m.com/electronicmaterials

United States

3M Electronics Markets
Materials Division
800 810 8513

Canada

3M Canada Company
800 364 3577

China

3M China Ltd.
86 21 6275 3535

Europe

3M Belgium N.V.
32 3 250 7521

Japan

Sumitomo 3M Limited
813 3709 8250

Korea

3M Korea Limited
82 2 3771 4114

Malaysia

3M Malaysia Sdn. Berhad
60 3 706 2888

Philippines

3M Philippines, Inc.
63 2 813 3781

Singapore

3M Singapore Pte. Ltd.
65 454 8611

Taiwan

3M Taiwan Limited
886 2 2704 9011

Other Areas

651 736 7123 (U.S.)

Important Notice to Purchaser: The information in this publication is based on tests that we believe are reliable. Your results may vary due to differences in test types and conditions. You must evaluate and determine whether the product is suitable for your intended application. Since conditions of product use are outside of our control and vary widely, the following is made in lieu of all express or implied warranties (including the warranties of merchantability or fitness for a particular purpose): Except where prohibited by law, 3M's only obligation and your only remedy, is replacement or, at 3M's option, refund of the original purchase price of product that is shown to have been defective when you received it. In no case will 3M be liable for any direct, indirect, special, incidental, or consequential damages (including, without limitation, lost profits, goodwill, and business opportunity) based on breach of warranty, condition or contract, negligence, strict tort, or any other legal or equitable theory.



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