

# Luvantix ADM

UV Curable Low Refractive Index Coatings

Special Fiber Low RI Coating

High Power Fiber Coating

Recoating Resin

Display Films

Adhesives

Optical Solution Provider for Special Fibers

## Low Refractive Index Coatings

# Optical Film Coating

## UV Curable Coatings

### PRODUCT LIST

2018. 01.

# 9H Super Flexible Hard Coating

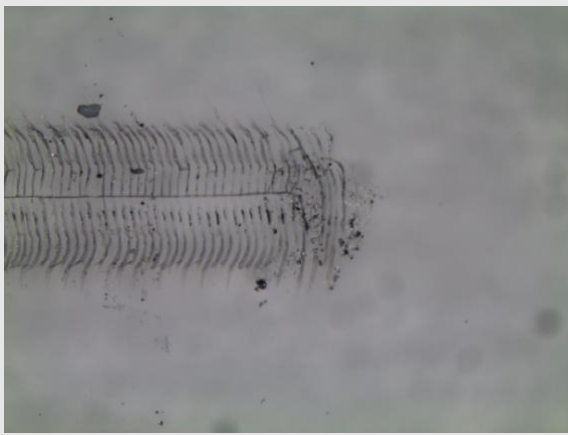
## ■ 9H UV Curable Hard Coating for Film

SFH series are UV curable siloxane and designed for super flexible hard coating. The SFH series is formulated for flexible display requiring 9H surface hardness with 1R inner and 10R outer flexibility. The SFH series has a UV curable siloxane chemical backbone structure that show super flexibility even with 9H pencil hardness

Salient features include:

1. 9H pencil hardness with 700g loading (ASTM D3363)
2. Bend radius of 1mm inner and 10mm outer
3. Excellent adhesion to PET and PP with primer
4. UV curable and right Viscosity for conventional film coating line

### 9H pencil hardness with 700g loading (ASTM D3363)



Conventional UV Hard Coating



SFH Super Flexible 9H Coating

Product Code	SFH-1137	SFH-1225	SFH-2910	SFH-2950
<b>Liquid Resin</b>				
Resin Type	UV Siloxane	UV Siloxane	UV Siloxane	UV Siloxane
Viscosity 25°C (cPs)	150±50	150±50	150±50	150±50
Density 25°C (g/cm <sup>3</sup> )	<1.1	<1.1	<1.1	<1.1
Refractive Index (589nm)	1.47	1.47	1.47	1.47
Solid Content (%)	65%	65%	65%	65%
<b>Cured on PET Film</b>				
Thickness (µm)	40±5	40±5	40±5	40±5
Adhesion Cross Cut	5B (100/100)	5B (100/100)	5B (100/100)	5B (100/100)
Pencil Hardness (750g)	6H	7H	7H	9H
Flexibility (Outer)	10R	15R	20R	30R
Steel Wool Scratch (1kg)	No	No	No	No
Contact angle (D.I water)	88	88	90	95

# Low Refractive Index Hard Coating

## Low Refractive UV Curable Hard Coating

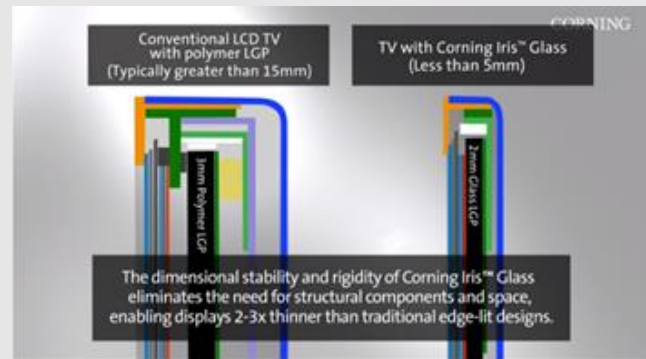
SFH have low refractive index radiation-curable hard coating series, useful for ultra-high transmittance film manufacturing. It has the same 3H pensile hardness like conventional hard coating, but the refractive index can be lower down to 1.417. It also has strong adhesion to PMMA, PET and PC substrate along with unique long-term reliability.

Product Code	SFH-417PC	SFH-431SH	SFH-439PC
<b>Liquid Resin</b>			
Resin Type	Fluoro Urethane	Fluoro Siloxane	Fluoro Urethane
Viscosity 25°C (cPs)	350±50	100±30	8000±500
Solid Content (%)	90%	70%	100%
<b>Cured on PET Film</b>			
Refractive Index (589nm)	1.417	1.431	1.439
Thickness (µm)	30±5	40±5	30±5
Adhesion Cross Cut	5B (100/100)	5B (100/100)	5B (100/100)
Pencil Hardness (750g)	H	3H	H
Flexibility (Bending Radius)	5R	10R	5R
Steel Wool Scratch (100g)	No	No	No

# Ultra-Low Index Coating for Display

## Super Low Refractive UV Curable Coating for Display

SFH-LC series are products having the lowest commercially available refractive index with most cost effectiveness in the optical film materials market. The SFH-LC series is a radiation-curable fluoro-acrylate useful for optical film application. It has strong adhesion to PET & PP film treated with primers. The applications of SFH-LC are constructing of improved glass light guide, auto-stereoscopic 3D displays and OLED.



The low refractive index enables total internal reflection of light and better extraction of light from OLED improving system efficiency.

Product Code	SFH-340LC	SFH-345LC	SFH-370LC	SFH400LC
<b>Liquid Resin</b>				
Viscosity 25°C (cPs)	5400±200	5400±200	1900±200	1500±200
Solid Content (%)	100%	100%	100%	100%
<b>Cured on PET Film</b>				
Refractive Index (589nm)	1.340	1.345	1.370	1.400



# Luvantix ADM

Photonic solution provider

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