



## FleXAR 100-series

Anti-reflective coating for flexible PET and Polycarbonate



### Description

FleXAR 100-series is a siloxane polymer solution designed to work as an easy-to-apply coating that enhances light transmittance and reduces unwanted reflection in a wide variety of lighting and display applications. FleXAR 100-series allow display, lighting, and luminaire manufacturers to achieve clarity and important energy savings through improved Lumen/Watt performance without sacrificing creative functional design.

#### Main Applications

- Flexible Displays
- Automotive Infotainment Systems
- Lighting Fixtures / Luminaires

#### Key features

- Truly flexible coating
- Cost savings through improved energy efficiency
- Easy to apply requiring low curing temperatures

### Technical Background

Planar, stepped, curved or even bendable displays and infotainment systems always require more brightness, clarity, and efficiency with lower power consumption. Optitune FleXAR 100-series delivers exceptional optical properties to plastics that are necessary to achieve such light weight and complex designs.

### How to Apply

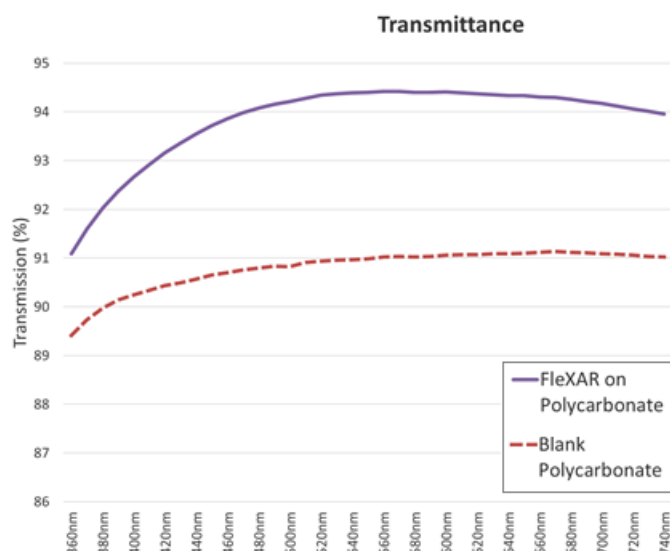
Ideally, FleXAR 100-series is applied by using roll-to-roll tool with slot die coating process followed by a simple thermal cure. FleXAR coating material is available as a liquid ready-to-coat solution, which can be applied on one or both sides of the substrate.

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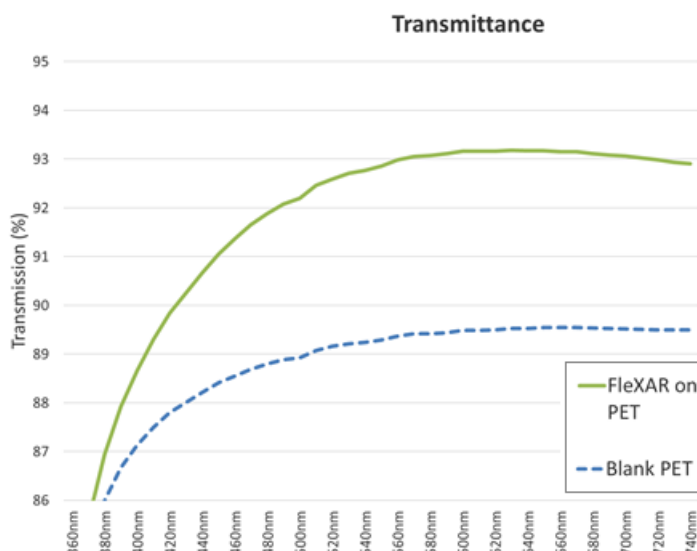
## Performance

### Transmittance (%)

FleXAR 100-series coating enhances light transmittance over a broad wavelength range.



Graph 1. Visible light transmittance curve of single side coated FleXAR polycarbonate film vs. non-coated. Substrate 250 µm Lexan 8010.



Graph 2. Visible light transmittance curve of single side coated FleXAR PET film vs. non-coated. Substrate 125 µm Melinex.

	Reflectance @550 nm	L*(D65)	a*(D65)	b*(D65)	Haze(D1003-97)(C)	Haze Cmod
FleXAR 100-series on PC (Lexan 8010, 250 µm)	coated 1,22% (blank 5,52%)	97,76	-0,15	0,44	0,15	0,17
FleXAR 100-series on PET (Melinex 125 µm)	coated 2,42% (blank 6,65%)	97,12	-0,18	1,21	0,09	0,1

Table 1. CIELab values of FleXAR 100 series coated Lexan 8010 and FleXAR coated PET Melinex films.

### Truly Flexible

Due to very thin coating layer thickness FleXAR 100-series extremely flexible. FleXAR 100 series on 250 µm Lexan 8010 polycarbonate or 125 µm Melinex PET substrate can be bent around 2 mm diameter mandrel without cracking or delaminating, and it has 5B adhesion on both substrates.

### Solution properties, storage and handling

Solution should be stored below room temperature, preferably +4°C, in a well-ventilated place. Keep containers tightly closed and protected from sources of heat and light. Shelf life is 6 months from the date of manufacture. For working safety, consult product Material Safety Data Sheet.

The information given is based on our best knowledge at the date of issue but carries no guarantee or acceptance of responsibility. For further data on coating materials toxicological, ecological and safety aspects, please consult the MSDS. It is the responsibility of the user of the product to ensure to satisfaction that the product is suitable for the intended purpose and methods of use. We do not accept responsibility for any harm caused by the use of this information.