



Optiguard™ Endurance

YOU TOUCH WE PROTECT

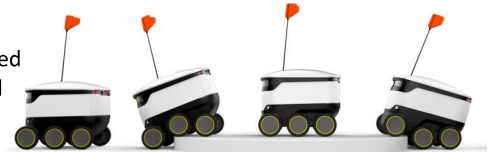
PG Data Sheet 33

ULTIMATE SURFACE COATING FOR DEMANDING EXTERNAL CONDITIONS

Overview

An Advancing World: As digital technologies continue to progress, the plastics required to protect that technology must develop in parallel. To cope with increasingly demanding specification, it is critical that screens and cover lenses combine high performance with durability.

A Sensory Environment: As our world becomes more automated, sensors are utilised everywhere. Increasingly, they are required to function externally and often in harsh real world environments. From range-finding LiDAR and RADAR to motion sensing PIR, optical plastics with specialised performance coatings are an essential component in the chain.



Description

Optiguard™ Endurance is a clear UV-curable, silica-modified coating that can provide weathering, chemical and abrasion protection to plastics. It is an excellent choice for use on products requiring improved weathering and mar resistance, such as LiDAR protection covers and many other external applications.

Why Optiguard™ Endurance? IT'S TOUGH OUT THERE!

The external environment can be challenging and unforgiving for your product. A novel or new environment that pushes the capabilities of the materials to their limits can be considered a "harsh" environment. Each of the following stresses can contribute to a component's environment...



Temperature:

From Sub Zero to High Heat

Chemical:

Salt / Saltwater / Moisture / Fuel / Noxious Gases

Radiative Stress:

UV Rays / Cosmic Rays / Electromagnetism

Mechanical Stress:

Vibration / Shock / CTE Mismatches / Pressure

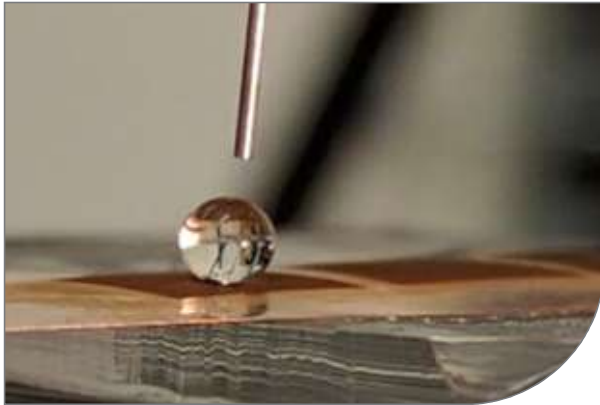
Optiguard™ Endurance provides excellent levels of protection and extended life against ALL of these stresses.

Key Features

Optiguard™ Endurance is an advanced and versatile surface enhancement coating providing ALL of the following elements:

SUPERHYDROPHOBIC

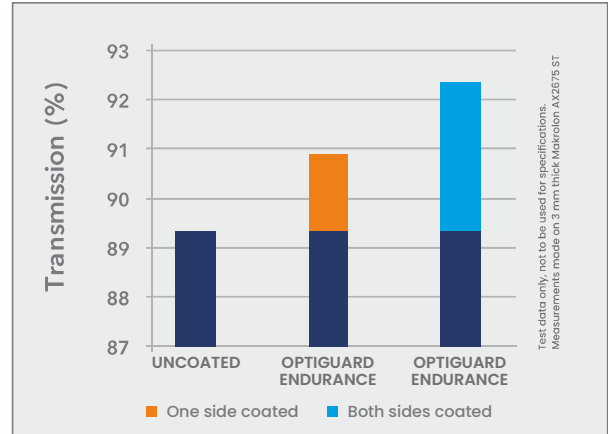
Low friction technology reduces surface contamination and aids water shedding, helping to maintain excellent optical transmission in challenging conditions, giving Optiguard™ Endurance the competitive edge.



Hydrophobic data evaluation based on introducing water droplet to substrate and measuring the resultant contact angles.

OPTICAL TRANSMISSION

High level optical performance in all weather conditions makes Optiguard™ Endurance perfect for external applications. Applying to BOTH SIDES of the substrate significantly increases transmission:



Transmission Rates of Coated Polycarbonate at 905 nm

LOW FRICTION

Superb contact release properties aiding water shedding and de-greasing.

EASYSOON

Protection of substrates against grease and grime for simple maintenance and longer life.

WEATHERABILITY

Tough shield providing excellent resistance to external elements.

UV RESISTANT

Excellent extended resistance to UV rays to effectively reduce photodegradation.

CHEMICAL RESISTANT

Protects against corrosion and wear from heat, moisture, pH, and electrochemical potentials.

ABRASION RESISTANT

Tough shield providing surface hardness up to 8H.

Typical Applications

Optiguard™ Endurance has been developed for use across a variety of industries including Automotive (AMECA, VW and various OEM approved), Aerospace, Agriculture, Public Infrastructure, Manufacturing and Architectural. Optiguard™ Endurance is ideal for applications where continuous optical performance is crucial under challenging environmental conditions:

Transportation:

External Automotive:
LiDAR /Radar/Camera Protection
Headlamps
Motorcycle Windshields
Plane, Boat, Train windows
Road Signage

Industrial:

Security Camera Domes
PIR Motion Sensor covers
Heavy use LCD screens
Anti-Riot Equipment
Safety Visors
Anti-vandal glazing

Architectural glazing
Security Windows
Equipment Housings
Bus Shelters
Masks, Eyewear, Goggles
In-Field Medical and Military

Get in touch with us today to learn more and submit your enquiry.

