

# Optool UD120

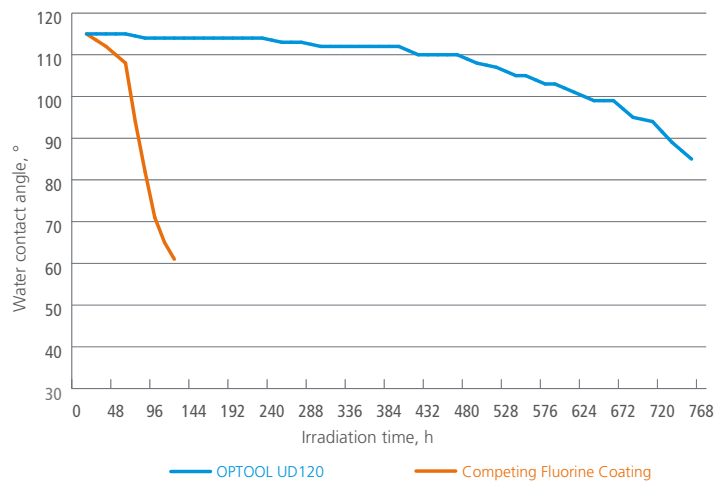
Optool UD120 is an antifouling coating agent with excellent weather resistance. UD120 shows excellent performance in stain resistance, chemical resistance and surface slippery under UV exposure condition.

## Product Features

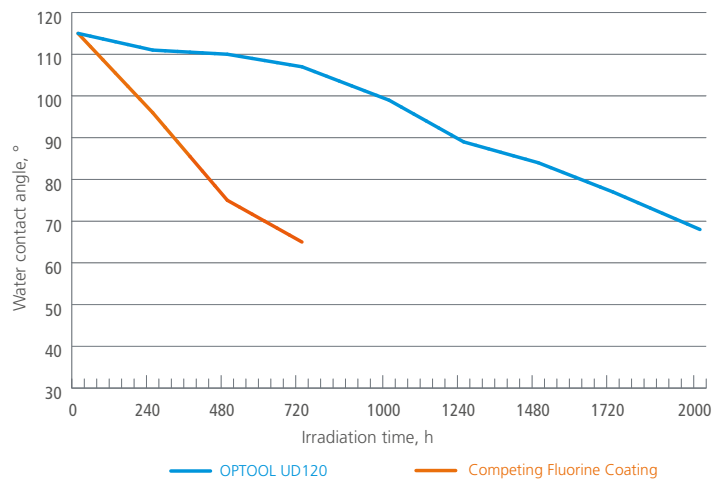
- Excellent water and oil repellency with superb UV resistance
- Good anti-fingerprint property
- Super thin film coating and no impact for optical properties
- Reduce sliding contact angle
- Non-stick and low surface energy
- Excellent adhesion to Glass, SiO<sub>2</sub> and compatible with AR coating layers
- Excellent acid / base resistant

## Accelerated Weathering Tests

Accelerated Weathering Test (QUV)



Accelerated Weathering Test (SAE J2527)



## Packing specification

- 0.1 kg

## Safety

Before using this product, please read the current Material Safety Data Sheet. This product is intended for general industry, and therefore its adequacy and safety as a raw material for medical purposes cannot be guaranteed.

## Physical Properties\*

The following data was measured on UD120 coated Gorilla Glass surface.

Item	Optool UD120	Competing fluorine coating
<i>Water contact angle</i>		115 °
<i>Critical surface tension</i>		13 mN / m
<i>Sliding angle of water</i>		8 °
<i>Sliding angle of n-hexadecane</i>		6 °
<i>Tendency for fingerprint transfer</i>		Better
<i>Cleanability</i>		Excellent
<b>QUV durability<sup>2</sup></b>	<b>600 h</b>	<b>72 h</b>
<b>Xenon arc lamp durability<sup>3</sup></b>	<b>990 h</b>	<b>200 h</b>
<b>Steel wool abrasion durability<sup>4</sup></b>	<b>12,000 cycles</b>	<b>6,000 cycles</b>
<i>COF<sup>5</sup></i>		0.07
<i>Haze</i>		0.24
<i>High temperature test<sup>6</sup></i>	115 °	114 °
<i>High temperature and high humidity test<sup>7</sup></i>		115 °
<i>Acid resistant<sup>8</sup></i>	115 °	107 °
<b>Base resistant<sup>9</sup></b>	<b>114 °</b>	<b>59 °</b>

\*The above physical properties are representative and not guaranteed.

<sup>2</sup>: Irradiation time to keep water contact angle above 100 °.  
UV source: UV-B313, Irradiance (@313 nm): 0.63 W/m<sup>2</sup>

<sup>3</sup>: Irradiation time to keep water contact angle above 100 ° (SAE J2527)

<sup>4</sup>: Maximum rubbing cycles to keep water contact angle above 100 °  
Conditions: Steel wool #0000, Load: 1 kgf/cm<sup>2</sup>, Stroke: 6 cm, Speed: 60 rpm

<sup>5</sup>: Equipment: LabthinkFPT-1, Load: 200 g, Speed: 200 mm/min, friction material: paper

<sup>6</sup>: Water contact angle in Air 130 after 6 days passage

<sup>7</sup>: Water contact angle in Air 85 °C / 85 % RH after 6 days passage

<sup>8</sup>: Water contact angle in 1.0 mass% HCl aq. 25 after 4 days passage

<sup>9</sup>: Water contact angle in 4.0 mass% NaOH aq. 25 after 4 hours passage

## Daikin Chemical Europe GmbH

Am Wehrhahn 50  
40211 Düsseldorf  
Germany

Tel.: +49 211 179225-0  
Fax: +49 211 179225-39  
www.daikinchem.de