



# PHOTOMER<sup>®</sup> 5010 Matting Resin

## Product Data Sheet

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### General Information

PHOTOMER<sup>®</sup> 5010 is a di functional self matting oligomer used in UV/EB curable systems. It has been specially designed to formulate very low gloss UV varnishes.

### Specification

<b>Appearance</b>	<b>Visual</b>	<b>Hazy gel</b>
<b>IR identification</b>	<b>M 156</b>	<b>Conform reference</b>
<b>Specific Gravity @ 25°C</b>	<b>ISO 2811- 3</b>	<b>1.056 - 1.061 g/cm<sup>3</sup></b>

### Additional Typical Properties

PHOTOMER<sup>®</sup> 5010 exhibits a strong pseudoplasticity. Without stirring, the product is like a gel. During application (or under agitation), it becomes fluid for easy handling. As soon as stirring is stopped, PHOTOMER<sup>®</sup> 5010 returns to its gel form. More over, the viscosity tends to increase together with the temperature.

### Application

PHOTOMER<sup>®</sup> 5010 is a core resin in systems where very low gloss is requested. In combination with other types of resins (PU or Polyester acrylates), the formulator can easily adjust reactivity, viscosity and gloss level regardless of the film thickness.

PHOTOMER<sup>®</sup> 5010 based formulations ensures a constant gloss level independently of the working temperature. For better results, it is recommended to cure the film with low energy UV exposure.

Photomer<sup>®</sup> 5010 eliminates the need for working with dry powders and therefore grinding or dispersing is not needed. By selecting photo initiators in a liquid form the need for manufacturing at higher temperatures can be avoided at the same time. This makes PHOTOMER<sup>®</sup> 5010 highly suitable for small order productions.

Formulated product properties will depend on the actual reactive monomers, oligomers and additives utilized.

## Features & Benefits

Gloss is inversely proportional to the level of Photomer® 5010 and UV cured film gloss (60°). A basic study was performed.

Product	Parts
Photomer 5010	0 – 80 %
Photomer 6891	92-12 %
Omnirad BEM	4 %
Omnirad 73	4 %

Coating is applied at 30 µm filmthickness and cured by 2 passes.

1<sup>st</sup> Pass            Conveyor speed, 25 m/min at 60 W/cm.  
 2<sup>nd</sup> Pass            Conveyor speed, 5 m/min at 120 W/cm.

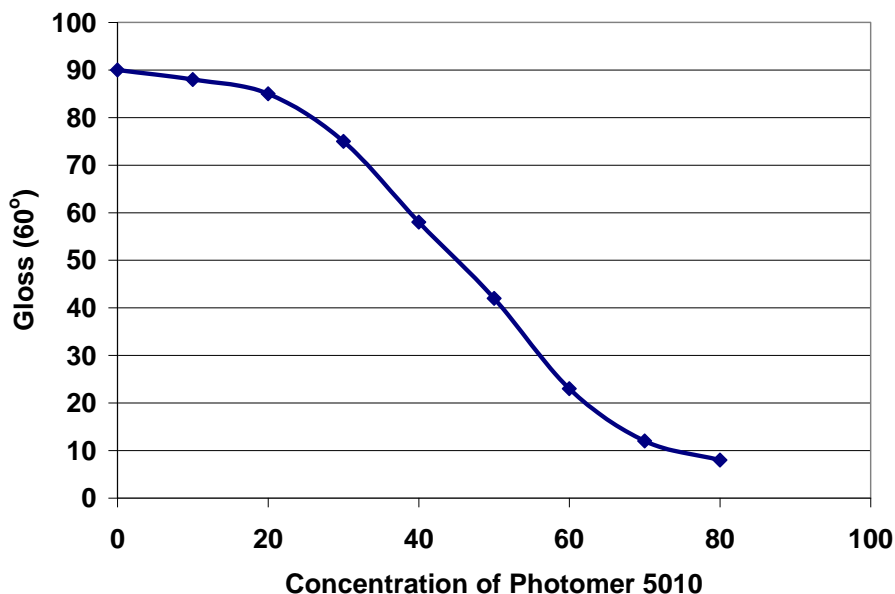


Figure 1: Gloss (60°) of UV cured coating as a function of Photomer® 5010 level.

## Storage & Handling

Storage must be in a cool, shaded, well ventilated and dry area away from direct sources of heat and sunlight. Subject to appropriate storage under the usual storage and temperature conditions, our products are durable for at least 12 months.

PHOTOMER® 5010 should be handled in accordance with good industrial practice. Further information is provided in the material safety data sheet which is available on request.

## Regulatory Status

TSCA (USA), EU (Europe), IECSC (China), NDSL/DSL (Canada), Taiwan

## Packaging

PHOTOMER® 5010 is available in 180 kg drums.

### Disclaimer

The information presented in this data sheet is given in good faith and is based on the material available to us at the time of writing. The information is not to be taken as a warranty or representation for which we assume legal responsibility, nor as permission or recommendation to practice any patented invention without a license. It is offered solely for consideration, investigation and verification.