



# PHOTOMER<sup>®</sup> 6891

## Aliphatic Urethane Acrylate

### Product Data Sheet

#### General Information

PHOTOMER<sup>®</sup> 6891 is a proprietary low viscosity difunctional aliphatic urethane acrylate that can be used to formulate low viscosity systems while maintaining high oligomeric concentrations. PHOTOMER<sup>®</sup> 6891 imparts flexibility into UV/EB cured coatings and inks.

#### Specification

<b>Appearance</b>	<b>Visual</b>	<b>Clear pale yellow liquid</b>
<b>Viscosity @ 25 °C</b>	<b>Brookfield, ISO 2555</b>	<b>6,000 - 10,000 mPa·s</b>
<b>Colour (Gardner)</b>	<b>ISO 4630</b>	<b>≤ 1</b>
<b>Isocyanate content (NCO)</b>		<b>≤ 0.1 %</b>

#### Additional Data

Weight/Gallon @ 25°C	9.0 lbs
Molecular Weight	1500 g/mol
Weatherability	89% gloss retention @ 3000 hrs of exposure to 313 nm UV light
Refractive Index @ 20°C	1.4900

#### Application

PHOTOMER<sup>®</sup> 6891 is recommended for clear overprint varnishes where low application viscosities are required, but can not be achieved without using high concentrations of acrylate monomers. It imparts excellent physical properties including adhesion and flexibility into a variety of plastic, metal and paper applications. PHOTOMER<sup>®</sup> 6891 forms tough, flexible films with good solvent resistance, and it is recommended for all low viscosity UV/EB applications including plastic, packaging and wood coatings and inks.

**PHOTOMER® 6891****Film Studies**

	<b>Aluminum</b>
Tensile Strength	1200 psi
Elongation	70%
Modulus	2300 psi
Pencil Hardness	3H
Solvent Resistance (MEK Double Rubs)	50
Adhesion (#600 Cellotape)	Good
Conical Mandrel	< 0.25"

<sup>1</sup> Diluted with 30% PHOTOMER® 4061 TRPGDA

Cure Conditions: 3 mils wet film thickness;  
4 % Omnirad® 73;  
200 ft/min; one 300 watt/inch UV lamp.

**Regulatory Status**

TSCA, ENCS/MITI, IECSC

**Miscellaneous****PACKAGING, STORAGE AND HANDLING**

PHOTOMER® 6891 is available in 55 gallon (200 liter) lined openhead steel drums. PHOTOMER® 6891 may solidify or crystallize if subjected to cold or freezing conditions. Allow to warm to 50 °C until a uniform product is obtained, mix on a drum roller if necessary. Storage must be in a cool, shaded, well ventilated and dry area away from sources of direct heat and sunlight.

Additional handling information is contained within the material safety data sheet which is available upon request.

**FREIGHT CLASSIFICATION**

PHOTOMER® 6891 is classified as: Synthetic Resins NOIBN (Resin or Resin Compounds).

Subject to appropriate storage under the usual storage and temperature conditions, our products are durable for at least 24 months.

Suggestions of processing and using our products are given with best knowledge and information but without obligation. IGM Resins, B.V. does not accept any guarantee to the suitability of a product for the user's specific purpose. Further on the user himself assumes a liability to follow all legal regulations by using our products. The user can only pass on our sample to third parties with previous assent of IGM Resins, B.V.